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Canadian Research on Immigration and Health



An Overview

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Recherche sur l'immigration et la santé au Canada : Un aperçu

This report was written for Health Canada by Dianne Kinnon,
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Preface

After consultation with the Metropolis Health Canada Working Group (HCWG) and lead health researchers at the Metropolis Centres of Excellence, a decision was made to conduct an environmental scan of health research of relevance to the Metropolis Project and Health Canada's policy interests. This project was seen as a first step in identifying directions for further action, such as areas requiring new research, syntheses of existing research or an expansion/replication of existing studies.

The environmental scan was conducted for Health Canada by Dianne Kinnon of Kinnon Consulting between August and October 1998. Due to time restrictions, the scan was limited to English and French language Canadian studies that were conducted from 1990 to the present. The scan included: completed and "in-progress" federal government research, including Metropolis-initiated research, as well as published academic research and selected community-based research.

The results of this scan have undergone an extensive period of consultation and review and are now presented in this report. The first draft was presented to a meeting of Metropolis lead health researchers and members of the HCWG in October 1998. Participants were provided with an overview of the scan and an opportunity for comment and discussion. In particular, they were invited to: (a) identify studies which may have been omitted, and (b) comment on the findings of the scan and their implications for further work. Comments were very positive and focussed on the usefulness of the findings for setting priorities for the coming year. A key outcome of the meeting was the recommendation that the report be presented to the 3rd Annual Metropolis Conference in Vancouver in January 1999.

Following the October 1998 meeting, the report was revised further, and preparations made for its presentation at the initial health workshop at the National Metropolis Conference. The workshop was designed so that presentation of the research scan would be followed by comments from speakers representing the research, practice and policy communities.

Special thanks are extended to Isabel Dyck of the Vancouver Centre of Excellence for her on-site organization of the workshop, to Dianne Kinnon for her presentation of the research scan, and to the following four respondents for their comments on the implications of the research: Dr. Samuel Noh of the Toronto Centre of Excellence; Vera Radyo of the Affiliation of Multicultural Societies and Service Agencies of B.C.; Tricia Braidwood-Looney of the B.C. Ministry of Health; and Elaine Scott of the B.C./Yukon regional office of Health Canada. The workshop was well attended and the ensuing discussion helpful in identifying additional research for possible inclusion in the study.

The final report was prepared and, where possible, has taken into account the suggestions made at the Vancouver conference. This publication represents the work and collaboration of many people, including the Metropolis health researchers and the members of the Metropolis HCWG. Special appreciation is extended to Carol Silcoff, Nancy Hamilton and Lucie Charron of Health Canada for their stewardship of this project.

Abstract

The purpose of this report is to present an overview of Canadian research on topics related to immigration health. It addresses a wide range of issues grouped within Health Canada's three main areas of interest:

- promotion of population health
- health system support and renewal
- management of risks to health

The main scan of research was conducted from August to October 1998, with some additional recommended documents added early in 1999. Federal government-funded research and published academic research were included. Due to limited time and resources, primarily large, broad studies of national policy interest published from 1990 to the present were included in the scan.

The scan identified a number of main themes and remaining gaps in immigration health research. Namely, there is:

- a predominance of material on health determinants (compared to management of risks to health and health system support and renewal), yet there are significant gaps in knowledge
- evidence for considering the immigration experience itself as a health determinant
- a need for more gender analysis in immigration health research
- a wide scope for additional research related to health system support and renewal
- a need for an immigration perspective on management of risks to health
- little focus on the strengths of immigrants or their positive effect on the health care system
- a need for a focus on immigrant sub-populations

Based on the results of the scan, a number of suggestions are made for research syntheses, in-depth literature reviews and new immigration health research topics.

Appendices include document search terms, a list of governmental and non-governmental organizations contacted and an annotated list of health-related research undertaken by the Metropolis Centres of Excellence.

1

Introduction





The Metropolis Project

The Metropolis Project is a six-year international initiative intended to increase governmental capacity for making evidence-based policy decisions in the area of immigration and settlement. The Canadian Metropolis Project, initiated by Citizenship and Immigration Canada (CIC), is a joint undertaking of the Social Sciences and Humanities Research Council (SSHRC) and eight federal government departments, including Health Canada and CIC.

The objective of the Metropolis Project is to promote and support research on immigration and integration which is policy-relevant, city-focussed, comparative and multidisciplinary. Metropolis is a partnership among the critical stakeholders of immigration policy research. To take advantage of the wealth of developing knowledge and expertise, Metropolis is reaching out to the research community, Canadian universities, think tanks and community-based organizations to promote the transfer of knowledge needed for strategic policy making.

Under the Metropolis Project, four university-based Centres of Excellence — in Montreal, Toronto, Edmonton and Vancouver — have been established to conduct policy-relevant research on the effects of immigration in the broad context of cities. The centres consider immigration from two perspectives: the impact on the immigrant population itself, and the impact on the societies/cities that immigrants enter.

Research at the centres is organized according to domains — for example, citizenship and culture, economics, education, physical infrastructure, political and public services, and social domains. Health has been designated as a separate domain at two of the four centres. Centres support health research projects in the context of their other work, as well as through dedicated projects.

Health Canada's Participation

Within Health Canada, the Metropolis Working Group has been established to guide the department's participation in the project. The Working Group includes national and regional staff from four Health Canada branches and is coordinated by the National Health Research and Development Program, Information, Analysis and Connectivity Branch.

The Health Canada Working Group has a number of responsibilities, including: identifying the department's strategic objectives and policy interests in relation to Metropolis and then communicating these to the Metropolis Centres; promoting

opportunities for researchers, policy makers and other stakeholders to work collaboratively; and creating/identifying mechanisms and opportunities for communicating the results of research, conducted through Metropolis, back to policy makers within Health Canada.

Health Canada's policy interests relevant to the Metropolis Project have been organized according to three of its business lines and areas of focus:

- promotion of population health
- health system support and renewal
- management of risks to health

Promotion of Population Health

This business line represents a population health approach to health that takes into account and acts upon the broad range of factors/conditions that contribute to or detract from health, broadly defined as a state of complete physical, mental and social well-being (World Health Organization, Health and Welfare Canada, Canadian Public Health Association, 1986). These include factors/conditions in the socioeconomic and physical environment, as well as early childhood experiences, personal health practices, biology and health services. Gender and culture are also contributing factors. A key assumption is that health is a shared responsibility requiring the development of health-promoting public policies in sectors beyond the health care system, as well as within the health sector. More information on the determinants of health and the population health approach can be found in *Toward a Healthy Future: Second Report on the Health of Canadians* (Federal, Provincial and Territorial Advisory Committee on Population Health, 1999). Under this business line, Health Canada's immigration research interests include the health status of immigrants and how the determinants have an impact on the health of immigrant populations.

Health System Support and Renewal

Health Canada's policy interests related to health system support and renewal focus on quality and accessibility of health care provided to immigrants and factors/barriers that affect care — for example, cultural sensitivity of health care providers and literacy/language skills of consumers and providers. Policy concerns also include the impact of immigration on the health care system.

Management of Risks to Health

Globalization, international travel and immigration are altering the context in which risks to health must be managed. As a result, Health Canada's research interests in this area focus on research that will enable it to respond to the risks associated with changing immigration patterns and the implications of emerging and re-emerging infectious diseases, such as tuberculosis.

Scan of Research on Immigration Health

In 1996, Health Canada hosted a Metropolis Health Domain Seminar in which representatives of the Centres of Excellence, non-governmental organizations, the research community and federal, provincial/territorial and municipal governments

met to begin to establish research priorities in the field of immigration health and to promote interest in health issues within the Metropolis Project. Participants appreciated the opportunity to meet and exchange ideas and looked to Health Canada to continue taking a leadership role in exchanging information and coordinating common interests. More information about the seminar can be found in the *Metropolis Health Domain Seminar Final Report* (Health Canada, 1998).

More information on Health Canada's participation in the Metropolis project is available at the following Website: <http://www.hc-sc.gc.ca/iacb-dgiac/nhrdp/metropolis>

This overview of Canadian research on immigration health was a further step in identifying possible national-level initiatives that could be undertaken to support Health Canada's policy interests in the areas of Metropolis. As a result of this next step, it is hoped that the Working Group and lead health researchers from the centres will be able to identify directions for further action, such as syntheses of existing research, new research and expansion/replication of existing studies.

Purpose of the Report

This report presents an overview of Canadian research on topics related to immigration health. It is an attempt to "take stock" of existing health research that is relevant both to Metropolis and to Health Canada's areas of policy interest. An earlier draft of the report was reviewed by members of the Metropolis Health Canada Working Group and lead health researchers from the Centres of Excellence to assist in interpreting findings and identifying possible research gaps.

The report addresses a wide range of issues grouped within Health Canada's three main areas of interest: promotion of population health; health system support and renewal; and management of risks to health. However, equal attention is not paid to each topic. As knowledge of the broad range of factors that determine health grows, it is necessary to expand the areas of inquiry beyond what has traditionally been thought of as health. For example, promotion of population health addresses overall health status, socioeconomic conditions, and personal and environmental factors that affect the health of immigrants. Since this is a new and expanding area, considerable attention is paid to the determinants of health.

Conversely, management of risks to health is a well-established area of responsibility for the federal government. As a result, rather than duplicating the work of Health Canada's Health Protection Branch, only a brief overview of research is presented on communicable diseases, screening and surveillance as it relates directly to immigration.

The report also presents an overview of completed studies and federally-sponsored research in progress, as well as a summary of the issues addressed and the identified gaps in research. Appendices include document search terms, a list of governmental and non-governmental organizations contacted and an annotated list of health-related research undertaken by the Metropolis Centres of Excellence.

Demographics and Trends¹

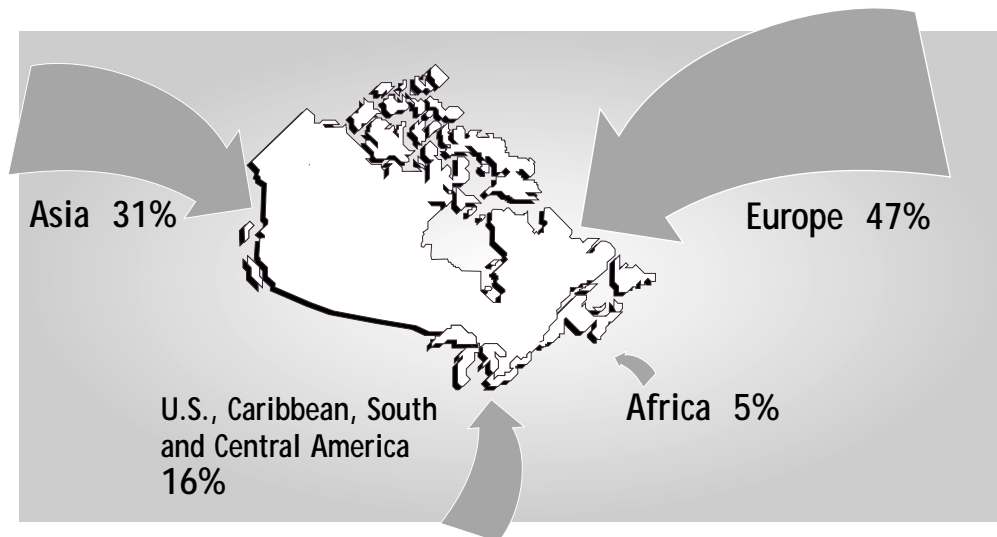
Following is a brief demographic profile of immigrants to Canada, that will set the context for further discussion.

Numbers and Origins of Immigrants

Immigrants comprise a large and dynamic segment of Canada's population. The immigrant population can be described in terms of **total immigrants** (all permanent residents born outside Canada) and **recent arrivals** (new immigrants who arrived in Canada in the last recorded year). In 1996, the total number of immigrants in Canada was 4,971,070, comprising 17.4% of the population (one in six people). This includes long- and short-term residents, different immigration classes and many different countries of origin. One in five children in Canada is either an immigrant or the child of immigrant parents.

While immigrants from Europe still comprised the largest regional sub-group of all immigrants in 1996, for the first time they accounted for less than half (47%) of the total immigrant population, largely because of recent increased immigration from Asia.

The regions of origin for all immigrants living in Canada in 1996 were as follows:



* Does not total 100% due to rounding.

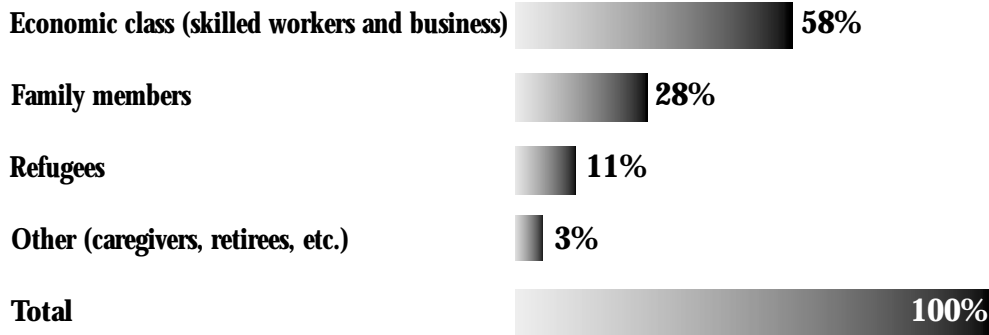
The proportion of immigrants with origins in Asia doubled (from 14% to 31%) between 1981 and 1996. Immigration from Africa and South and Central America showed only a modest increase.

Each year brings a new group of people who have chosen Canada as their home and who have been accepted as new residents by the federal government. Immigrants to Canada fall into several classes or purposes for immigrating. The majority come as skilled workers, entrepreneurs or investors. Others come to reunite with family members

¹ Unless otherwise stated, information in this section was taken from *Facts and Figures 1997: Immigration Overview* (Citizenship and Immigration Canada, 1998b) and *Report to SOPEMI on Immigration to Canada* (Citizenship and Immigration Canada, Strategic Policy Planning and Research Branch, 1997, 1998a).

or as refugees who are fleeing political or economic unrest in their countries of birth. A total of 216,039 new immigrants arrived in Canada in 1997, a 4% decrease from 1996 levels.

Categories of immigrants admitted to Canada in 1997 were as follows:



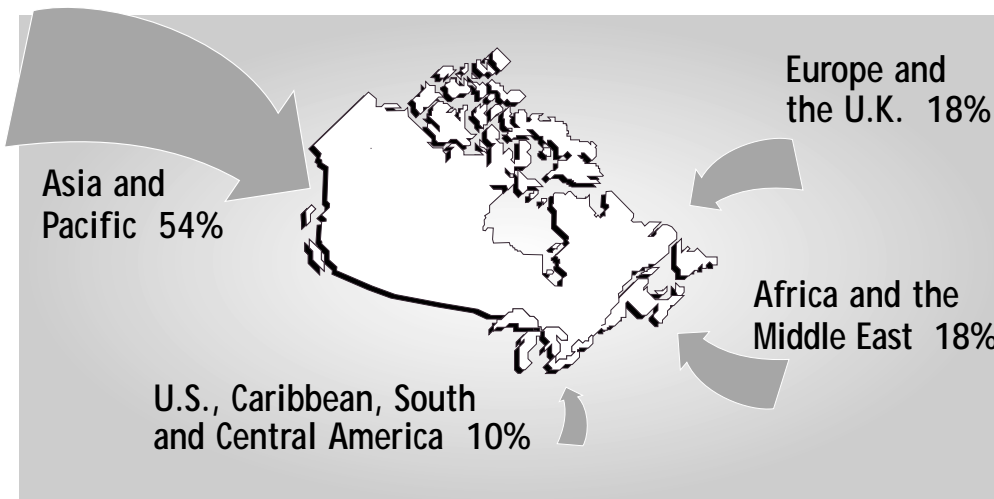
The number of economic class immigrants increased slightly over the previous year, while the number of family members, refugees and others decreased slightly. About one in nine people admitted to Canada in 1997 was a refugee. One third (32%) of them were government-sponsored and 11% were privately sponsored (and therefore eligible for government settlement assistance), while 44% applied for refugee status after landing in Canada.

Refugees often leave their home country unwillingly, and many leave behind family members and may not be able to return to their home country (Beiser, Dion, Gotowiec et al., 1995). The top four source countries for refugees in 1997 were Bosnia-Herzegovina, Sri Lanka, Afghanistan and Iran.

Changing Trends

Immigration demographics and trends have changed considerably over the last two decades, with the majority of new immigrants to Canada now coming from non-European countries. Many more immigrants now come from Asia and Africa than ever before.

The regions of origin for immigrants arriving in 1997 were as follows:



A growing proportion of young people in Canada, especially in the larger cities, were born in other countries. For example, 30% of youth in Toronto and 28% of youth in Vancouver are immigrants (Canadian Council on Social Development, 1998). About one quarter of immigrant children under the age of 12 enter Canada as refugees.

Language patterns among immigrants are changing. In 1997, the proportion of new immigrants who spoke neither English nor French was four in 10 (42%). About one half of these immigrants (51.3%) spoke English on arrival, while only one in 25 (3.8%) spoke French. The majority of children under the age of 15 (69%) were not proficient in either of Canada's official languages upon arrival in Canada in 1997.

Socioeconomic Profile

Contrary to common stereotypes, most immigrants quickly integrate into Canadian society and are self-sustaining. Recent immigrants tend to be younger than the Canadian population as a whole. In 1997, 29% of immigrants over the age of 15 were university graduates — considerably higher than the Canadian average. On the other hand, 41% had less than 12 years of schooling. In 1996, a majority of new arrivals aged 15 and over intended to work — 67% of all new immigrants indicated this intention (100% for business class and skilled workers), whereas 80% of refugees intended to work. Not all immigrants are able to find employment, especially those with lower skill levels. While immigrant family income is higher than the Canadian average, more recent immigrants (especially those from visible minority groups) have much lower incomes than previous arrivals and non-immigrants.

Destinations Within Canada

Ontario was the destination for more than half (55%) of new immigrants in 1997, followed by British Columbia (22%) and Quebec (13%). Most new immigrants settled in large urban areas — primarily Toronto (45%), Vancouver (19%) and Montreal (10%). However, 33% of refugees settled in Toronto, 23% in Montreal and a further 18% settled outside the largest urban areas.

2

Approach to the Study





Overview

The main research scan related to immigrant health was conducted from August to October 1998, with some additional recommended documents being added early in 1999. The scan comprised three types of research:

- completed and in-progress research and analysis undertaken or funded by the federal government (including research from the Metropolis Centres of Excellence)
- published academic research
- selected community-based research

The purpose of this project was not to review the findings of this research in depth, but to prepare an overview of the quantity and nature of the research undertaken. As a result, much of the overview was prepared from research project descriptions and document abstracts. Full literature reviews and syntheses on particular topics may be undertaken as follow-up projects.

Scope of the Search

Due to limited time and resources, the search for documents focussed on:

- research relevant to the Metropolis Project and Health Canada's policy interests, with a special focus on research related to the promotion of population health
- large, broad studies of national policy interest (with emphasis on review articles)
- "Canadian" literature, including publications with Canadian content authored by non-Canadians, Canadian authors addressing Canadian content but published in non-Canadian journals, and multi-country research that included Canadian data

The search was limited to English and French language documents published from 1990 to the present.

Federal Government Sponsored Research

Federal government sources for relevant research included:

- Metropolis Centres of Excellence, Centres of Excellence for Women's Health, Centres of Excellence for Research on Family Violence and Violence Against Women and Children
- Medical Research Council (MRC)
- the National Health Research and Development Program (NHRDP)
- recent Health Canada grants, contributions and contracts
- the seven other government departments participating in the Metropolis Project

Not surprisingly, the Metropolis Centres of Excellence and the Centres of Excellence for Women's Health proved to be the richest sources of federally-sponsored research on immigration health.

Published Academic Research

A thorough search of the published research was conducted using available databases, including:

- Medline
- Aidsline
- Cancerlit
- CINAHL (Nursing and Allied Health)
- Health (policy)
- Current Contents (interdisciplinary)
- EAI (Expanded Academic Index)
- PAIS (Public Affairs Information Service) International Politics
- Microlog (Canadian Government Documents)
- Psych-Info
- Sociofile
- Social Work Abstracts
- Geography
- Swetscan (database and document delivery service of the National Research Council Library)
- Carl Uncover (U.S. database and document delivery services)
- Canadian Social Trends (Statistics Canada publication)

Search terms were broad and inclusive of the wide range of determinants of health, health system issues and risk management. Various health conditions and age categories were included. (For a complete list of generic search terms, see Appendix A.)

In selecting documents for analysis, original quantitative and qualitative research was included; in all, about 220 documents were scanned. Single-case or small, single immigrant group/single-disease studies, evaluation research and unstructured consultations were excluded, as were biomedical studies. Reports to federal standing committees and provincial/territorial, regional and local government documents were also excluded.

Unpublished Literature

The unpublished literature search was somewhat selective since it was expected that most original immigration health research undertaken by the community sector would be funded by the federal government, sponsored by a major national non-governmental organization, or co-investigated by a university-based researcher and hence identified by the other search methods. However, to provide a more inclusive search, 31 national, provincial/territorial and local organizations with an interest in immigration, settlement services, ethnoculturalism, disadvantaged populations and public health were selected by the research team and contacted by telephone or through the Internet and asked for relevant publications. (See Appendix B for a list of organizations contacted.)

Cataloguing and Review

All abstracts/documents were scanned and categorized according to the three major lines of inquiry and sub-categories related to specific issues, health topics, etc. The intention was not to complete an in-depth or critical review of materials, but to appraise the broad topics, general findings, and the quantity and types of research available in the field.

Limitations of the Search

Like all literature searches, this one was limited by the capabilities of library database structures and cataloguing. However, the ability to scan this quantity of materials was aided by the availability of abstracts in most databases and the assistance of federal government officials in suggesting and providing many documents.

Areas in which further inquiries may be beneficial include: journals and government documents related to (health impacts of) economics, labour market participation, education, membership in ethnic and visible minority groups, and discrimination. As well, additional literature produced by provincial, regional and municipal governments would add depth to the review.

3

Findings





Overview

This section presents the results of the literature scan. It begins with an overview of the research: areas of inquiry, topics, issues addressed and highlights from the research results, where available.

Nature of the Research

By far, the majority of research on the three topics focusses on immigrants themselves rather than their impact on Canadian society. As would be expected, population health topics address determinants of immigrants' health (and, by extension, the health of Canadians as a whole) and management of risk focusses more on public health concerns and transmission of disease. Research on health system support and renewal perhaps would be most likely to take a dual perspective; however, little research on the impact of immigration on the health care system was found.

While a substantial number of relevant documents were found, few topics within immigration health are extensively addressed. Most of the research relates to population health, which is not surprising since this area also contains the widest search and the most topics. Considerable research has been done to describe demographic trends and socioeconomic outcomes for immigrants and for Canada as a whole. Much less has been done to describe the health impact of employment, income, occupations, family structures, or living conditions of immigrant sub-populations such as refugees, low-income families and those from different countries/regions of origin. Addressing a range of determinants and their effect on immigrants' health would be an important addition to the knowledge base for policy development related both to services for immigrants and to population health reflective of the needs of immigrant sub-populations.

Considerably less research was found on the effects of health system support and renewal on immigrants' health, although several studies are presently under way. Topics include provision of appropriate services, effects of restructuring and changes/declines in funding and services on immigrant health, health services utilization and the role of immigrant/ethnocultural minority health care providers. Additional research may emerge over the next few years as the effects of regionalization, rationalization, spending reductions or slowdowns and changes in focus within the health care system become more apparent. The effects on immigrants, especially recent immigrants, would be an important focus.

The bulk of research related to immigration health deals with adults, with little that specifically addresses the needs and realities of children and seniors. Some research has been completed or is under way concerning youth — primarily related to mental health, cultural identity, integration, conflicting cultural values, and the effects of the immigration and refugee experience. Only a few studies were found that focus on senior women: these related to family support, beliefs about health/illness, barriers to services and health services utilization.

Culture is a central line of inquiry related to immigrants. A considerable body of knowledge is being created that addresses cultural differences in living conditions, experiences of discrimination, beliefs, values and behaviours, and the needs of cultural minorities in Canada. Only some of this research was reviewed for this scan, since the specific focus was immigration health.

Gender is also a growing concern as policy makers and researchers attempt to determine the effect that gender, in combination with other determinants, has on the health of Canadians. Several studies have recently been completed or are in progress through the Metropolis Centres of Excellence and the Centres of Excellence for Women's Health. These studies will help to fill the gap in research on immigrant women's experiences and concerns in such areas as: health issues/understanding of health; family and social support networks; breast cancer screening behaviours; health promotion; utilization of services; barriers to care; acculturation of female refugees; links between violence and mental and physical health; and links between reproductive and sexual health and religion.

Metropolis Centres of Excellence

At the time the scan was conducted, the four Metropolis Centres of Excellence had been in operation for up to two years and had launched a number of research projects with direct relevance to health. Only a few studies had been completed and many others were in progress. New research awards continue to be made. (For a more detailed description of health-related Metropolis research, see Appendix C.)

A considerable number of new population health-related studies will soon be completed by Metropolis-funded researchers. With regard to the health status of immigrants, an important contribution has been made through analysis of the National Population Health Survey by Dunn and Dyck (1998). Micro data files were used to explore health status, health care needs and utilization and social determinants of health.

Other studies on health status include Globerman (1998) and Yuan, Rootman, Teyeh et al. (in progress). Research focussing on women includes: Israelite (in progress); Krane, Oxman-Martinez, Chalom et al. (in progress); Meadows and Thurston (in progress); Meana, Wells, Bunston et al. (in progress); Ray, Rose, Charbonneau et al. (in progress); and Tastsoglou and Miedema (in progress). Research comparing mortality differences between recent and more established immigrants is being undertaken by Trovato (in progress), and respiratory health is being examined by Fuller-Thomson, Lee, Lawson et al. (in progress).

Research concentrating on a particular ethnocultural community includes: the Arab community in Toronto (Yuan, Rootman, Teyeh et al., in progress); and the older Iranian community (Dossa, in progress).

Adding to the knowledge of mental health issues are: Arthur (in progress); Langford, Waiyaki and Fantino (in progress); Kirmayer and Jarvis (in progress); Kirmayer, Young and Weinfeld (in progress); Noh, Hyman, Gobena et al. (in progress); Pepler, Connolly, Craig et al. (in progress); and Rousseau, Moreau, Drapeau et al. (in progress). The following studies will also add to the knowledge of children's mental health and integration issues: Baker (in progress); Hagan (in progress); Hébert, Kodron, Moreau et al. (in progress); Irving (in progress); Kilbride (in progress); and Pepler, Connolly, Craig et al. (in progress).

A number of Metropolis studies will shed further light on the income and employment situations of immigrants and the economies of the host cities; for example, employment/unemployment (Gross, in progress; Ledent and Renaud, in progress; and Shields, in progress), socioeconomic integration (Harvey, Sui and Reil, in progress), immigrants' wages/employment opportunities (Laryea, 1998; Li, in progress; Preston, Man and Mui, in progress; Reitz, in progress; and Wanner, in progress), discrimination/disadvantage (El Yamani, in progress; Halli, in progress; Ley and Smith, 1998; and Welsh, Koch, Murray et al., in progress). Housing needs and access are addressed by Grant (in progress) and Miraftab (in progress).

A few studies deal with aspects of the immigration experience, settlement and integration (Baker, in progress; Hagan, in progress; Irving, in progress; Israelite, in progress; and Simmons, Bielmeier, Ramos et al., in progress), although this area could be further explored. Several other studies address integration issues (Driedger and Halli, in progress; Kalbach and Kalbach, in progress; and Tastsoglou and Miedema, in progress) and, more specifically, the role of churches and religious groups (Bibeau and Corin, in progress; and Hayford, in progress), the effects of relations between ethnic minorities (Meintel and Sévigny, in progress) and settlement issues for immigrants with disabilities (Sandys, Hall, Ali et al., in progress, apparently a unique study in the literature). Young and Spitzer (in progress) are examining adaptation strategies and their effect on health.

Family and social support issues are considered in research on the building of community with survivors of torture (Chambon, Abai, Shapiro et al., in progress), housing/community support (Grant, in progress), family/intergenerational support (Firbank and Vézina, in progress; Langford, Waiyaki, Fantino et al., in progress; and Neufeld, Harrison, Stewart et al., in progress), neighbourhood bonds (Ray, Rose, Charbonneau et al., in progress), and prevention of parent-child conflict (Legault and Oxman-Martinez, in progress).

Many of the Metropolis research projects will provide valuable information on effective health promotion and disease prevention strategies for immigrants, for example, breast screening barriers and incentives (Meana, Wells, Bunston et al., in progress) and promotion of respiratory health (Fuller-Thomson, Lee, Lawson et al., in progress).

Somewhat fewer projects deal with topics related to health systems support and renewal. Analysis of the National Population Health Survey by Dunn and Dyck (1998) provides additional information on health care utilization as does research by Globerman (1998) and Hyman and Noh (in progress). Health care needs and barriers to access as a result of changing policies and funding structures are explored by Anderson (in progress); Creese (1998); Glazier, Cohen and Badley

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(in progress); Hyman and Noh (in progress); Jiminez, Saucier and Bibeau (in progress); Kirmayer, Young and Weinfeld (in progress); Israelite (in progress); Noh, Hyman, Gobena et al. (in progress); Weinfeld (in progress); and Young and Spitzer (in progress).

Barriers to access and improvement of services are the subject of several other studies. One study will investigate emergency assessment and treatment of immigrants with psychosis (Kirmayer and Jarvis, in progress, and Kirmayer, Young and Weinfeld, in progress), while cultural sensitivity/communication is addressed in studies by Hyman and Noh (in progress), Jiminez, Saucier and Bibeau (in progress) and Trocmé, George, Herberg et al. (in progress). Other studies investigate the roles of immigrant and foreign-trained health care providers (Basran and Zong, in progress; Jiminez, in progress; Jiminez, Saucier and Bibeau, in progress; Ogilvie, Smith, Wrightson et al., in progress, and Weinfeld, in progress). Finally, Krane, Oxman-Martinez, Chalom et al. (in progress) and Oxman-Martinez and Krane (in progress) are studying system responses to conjugal violence in immigrant families.

Only one Metropolis study directly addresses management of risks to health — a study of respiratory health among Chinese and Caribbean immigrants in Toronto (Fuller-Thomson, Lee, Lawson et al., in progress). Although considerable investigation is already being conducted by the federal government through Health Canada's Health Protection Branch, increased rates of infection, changing regions of origin and complicating factors such as poor living conditions among some immigrant sub-populations may warrant more attention to this topic within an immigration health perspective.

More information on the research programs of the Metropolis Centres of Excellence may be obtained by accessing the Metropolis Website at: http://www.canada.metropolis.net/main_e.html

Federal Government Research and Analysis

The federal government collects and analyzes some information related to immigration health. Citizenship and Immigration Canada collects and publishes annual reports on immigration. The 1996 report contains three years of descriptive information on classes of immigrants, country of origin, destination, intention to work, etc., and **demographics** such as gender, age, marital status and language ability. Other reports describe projected versus actual arrivals and **changing trends** in immigrant/refugee source countries, immigration classes, education, labour force participation, unemployment, earnings, etc., providing essential data related to socioeconomic determinants of health.

Statistics Canada has created the longitudinal Immigration Data Base (IMDB) which combines administrative records on immigration, employment and taxation activities to provide a comprehensive source of demographic, labour force and government transfer data on about 1.5 million immigrants in Canada. The database currently covers 1980 to 1995 and will be updated annually. A number of research projects analyzing the data are under way. The database can be accessed by the public, providing a rich source of comparative **socioeconomic** and demographic data and trend analysis.

An important source of immigration health data has been the 1994-95 National Population Health Survey. This large sample, population-based survey is a major source of national health data that will be repeated every two years for two decades, allowing for longitudinal analysis. While the number of immigrants represented in the study (2,400) makes sub-population analysis difficult, the survey has provided some useful data on **health status, health care utilization and health-related behaviour** of immigrants. The Health Statistics Division of Statistics Canada used survey data to provide information on the health of immigrants (Chen, Ng and Wilkins, 1996). Beiser, Devins, Dion et al. (1997) also used the data to study three health-enhancing and four health-risk determinants for immigrants, and Dunn and Dyck (1998) provided some analysis of social health determinants. Another Statistics Canada study used Census, vital statistics and the Health and Activity Limitation Survey data to describe life expectancy, disability and dependency (Chen, Wilkins and Ng, 1996).

Similarly, data on immigrant children from the National Longitudinal Survey of Children and Youth are beginning to be analyzed. Noh, Beiser, Hou et al. (1999) undertook an analysis of several indicators of **mental health** among first- and second-generation immigrant children, and several other researchers are using the data on immigrant children. One limitation, however, is the small sample size. Expanded collection and analysis of national immigrant health data would provide important comparative information for immigrant and non-immigrant groups.

Funding Within the Health Portfolio

Some immigration health-related research has been completed using (federal) funding from Health Canada. This research appears to be weighted toward population health concerns. For example, recent research funded by the NHRDP addresses the issue of population health through studies on: the validity of health status measures (Kopec, Williams, To et al., n.d.); health-enhancing and health-risk behaviours (Beiser, Devins, Dion et al., 1997); HIV/AIDS (Adrien, Godin, Cappon et al., 1995); parent-child communication (Young and Lynam, 1997); the Chinese elderly in British Columbia (Chappell, Lai, Gee et al., 1997); and tobacco use (Ferrence, Brewster, Edwards et al., 1996). Health services support and renewal is addressed by research on the delivery of effective services in the urban core (Willms and Bates, 1991), and utilization of community health and social services (Jacob and Blais, 1991).

More information on research related to ethnocultural issues (including immigration) funded by NHRDP is available at the following Website:
<http://www.hc-sc.gc.ca/iacb-dgiac/nhrdp/metropolis/studies.htm>

A cursory review of recent Medical Research Council of Canada (MRC) study titles did not reveal research relevant to this scan; however, there appears to be renewed interest in population-based studies that might address immigration health concerns.

Non-Governmental Organizations

Contact with selected community-based organizations did not yield any new empirical research within the scope of this scan.

Published Academic Research

The search of published Canadian materials revealed a considerable body of documents — journal articles, reports and dissertations. Due to the broad definition of health and health determinants, searches of social sciences databases were as useful as health-based sources. Academic research addressed the full range of topics with perhaps an emphasis on psycho-social concerns, integration/adaptation and service needs and gaps. The research included analysis of national databases and surveys, large random sample studies of particular immigrant sub-populations and smaller non-random samples, using interviews, case reviews, linked data and other methods. Methodology was not critiqued for the scan, but the larger studies were identified, especially if they were population-based.

Two reports that were prepared before 1990 were included in the scan. The work of the Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees (1988a, 1988b) appears to be the only federal inquiry into a health-related topic affecting immigrants. The Task Force was established by the federal government to investigate mental health issues, concerns and needs. The Canadian Task Force reports present the results of a literature review and extensive public hearings throughout Canada, and make recommendations that still have relevance for future research. Another useful source of research recommendations is the final report of the Metropolis Health Domain Seminar, an outcome of a meeting of researchers, non-governmental stakeholders and government officials in December 1996 (Health Canada, 1998).

Health Status

Population-based information on immigrant health status is available from a few sources, the most recent being the 1996 National Population Health Survey. Health status is examined in terms of chronic conditions, disability and health-related dependency. National population-based data on life expectancy, chronic conditions and disabilities, and years free from disability can be obtained from the 1991 Health and Activity Limitation Survey.

Information from other national sources and from smaller studies is available on some communicable diseases, non-communicable diseases, mental health and oral health. Women, youth, refugees and internationally adopted children are some of the sub-populations studied.

Overall Health Status

Information on overall health status, life expectancy and disability is also available. According to Chen, Ng and Wilkins (1996), the “healthy immigrant effect” apparent in other countries also applies to immigrants to Canada: in general, immigrants are healthy on arrival, but, compared to native-born Canadians, they lose this

advantage over time. Similarly, a recent (unpublished) analysis of first- and second-generation immigrant children in the National Longitudinal Survey of Children and Youth supports the view that immigrant children are mentally healthier than later-generation children or non-immigrant children (Noh, Beiser, Hou et al., 1999).

However, differences among immigrants clearly exist — Dunn and Dyck (1998) state that immigrants are more likely to report very good or excellent health if they: were born in Europe, the U.S. or Australia (compared to Asia, Africa or South America); are in the highest income quintile; and have a trade school or college diploma as opposed to a high school diploma.

National data reveal that immigrants (especially recent immigrants) are less likely than the Canadian-born population to have chronic conditions or disabilities. Generally, this is attributed to two factors: (1) those in good health are more likely to emigrate; and (2) the Canadian immigration screening process disqualifies people with serious medical conditions. Millar (1992) notes that due to differences in smoking behaviour, foreign-born Canadians may be at lower risk for smoking-related morbidity and mortality. Several studies show that the prevalence of chronic conditions among the immigrant population converges with that of the Canadian-born population over time (Chen, Ng and Wilkins, 1996). Interestingly, a study of Chinese elders in British Columbia found that they suffer from at least as many chronic conditions and as much functional disability as Canadian seniors in general (Chappell, Lai, Gee et al., 1997).

Analysis based on census data, vital statistics and data from the Health and Activity Limitation Survey also shows that, overall, immigrants — especially those from non-European countries — have a longer life expectancy and more years of life free from disability and dependency compared to the Canadian-born (Chen, Wilkins and Ng, 1996). However, Weinfeld (n.d.) points to the need to verify longer life expectancy among different immigrant groups, since wide variations in life expectancy can be found.

Data from the 1990 Ontario Health Survey show that immigrants report a health problem less often, but perceive their health less positively, than Canadian-born individuals. Pomerleau and Ostbye (1997) recommend further investigation of these and other differences in order to adapt health services to the needs of a multicultural population. A pilot study of the Hispanic American population in Vancouver concludes that “significant potential health problems exist in the community, particularly related to stress, lack of preventive behaviour and low [health care] utilization rates” (Palacios and Sheps, 1992, abstract).

The health status of refugees is poorer than that of immigrants in general because of their experiences prior to arrival in Canada and the less stringent selection process. A special issue of the periodical *Refugee* was devoted to child refugees in 1996. Compared to other immigrants and refugee adults, refugee children are more likely to have serious problems associated with malnutrition, disease, physical injuries, brain damage, and sexual and physical abuse that may affect cognitive, social and emotional development. Unaccompanied children pose the highest risks (various authors cited in Hyman, Beiser and Vu, 1996).

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Thonneau, Gratton and Desrosiers (1990) studied the health status of refugee applicants to Quebec in 1985-86 and found that their health was “satisfactory” overall, but that the “underestimation [of the extent of torture] and inadequate psychological follow-up among refugees are of great concern” (p. 182).

An interesting study of Canada-bound refugees in Buffalo, New York, indicates that the health of pregnant women is a major concern, as they are at potential risk for poor pregnancy outcomes. The authors suggest that further research on health problems among pregnant refugees is required (Kahler, Sobota, Hines et al., 1996).

Very little research was found on the health status of internationally adopted children at the time of immigration or on changes in health status after their arrival. One exception is a study of 105 families with adopted Romanian children who arrived in 1990-91. Half of the parents report that at the time of adoption the children were “unhealthy,” although there was a low incidence of infectious diseases. About one third continued to have medical difficulties and developmental delays up to five years later. The authors recommend longer-term follow-up studies (Marcovitch, Cesaroni, Roberts et al., 1995).

Communicable Diseases

References to incidence of tuberculosis, hepatitis, HIV/AIDS and parasites were found in the published literature. Numerous studies based on reported cases of tuberculosis and case records have been done. Immigrants are at greater risk of tuberculosis than those born in Canada, because of greater likelihood of exposure in their country of origin (Wilkins, 1996). Low-income immigrants may have compounded risk because of poor living conditions.

Little research has been published concerning hepatitis among immigrants — only two references were found in the literature. Bernier, Willems, Delage et al. (1996) investigated hepatitis C virus genotypes, finding differences between immigrants and non-immigrants. In a structured sample of 224 students in Vancouver, Ochnio, Scheifele and Ho (1997) found a significant difference in the prevalence of hepatitis A infections in students born outside Canada as compared with Canadian-born students (19.3% vs. 3%) — likely due to infection prior to arrival.

Fewer than 10 articles in the published literature collected for this study directly address HIV/AIDS and immigrants; these focus on issues of screening and prevention. A study in six ethnocultural communities in Canada on factors contributing to HIV/AIDS risk behaviour reveals both common elements, especially related to sociocultural issues and sex roles, and different factors across the communities that increase the risk of HIV transmission (Singer, Willms, Adrien et al., 1996). Another study examines HIV/AIDS knowledge among Montrealers of Haitian origin (Adrien, Boivin, Hankins et al., 1994), while Chittick (1996) looks at cross-cultural conflict as a barrier to HIV/AIDS prevention among youth.

Non-Communicable Diseases

Several studies of various cancers in the immigrant population have been undertaken in Canada, concentrating on risk levels and changes in subsequent generations. Specific references to breast, ovarian and cervical cancer were found. Cardiovascular and coronary heart disease have also been studied.

Kliewer and Smith (1995a, 1995b) studied breast and ovarian cancer rates among immigrant women, based on mortality data for 1984-88. Data were available on the relative levels of risk — based on country of origin — of breast and ovarian cancers. Analysis of these data revealed that the incidence and mortality rates among immigrant women converged with Canadian rates. However, the degree of convergence and the length of time was extremely variable. Based on results of the Newcomers Health Survey in Windsor, Ontario, and other research, Matuk (1996b) determined that ethnic minority women had lower cancer survival rates compared to white women.

Another topic of cancer research relates to changing cancer prevalence among second generation immigrants. Balzi, Geddes, Brancker et al. (1995) and Geddes, Balzi, Buiatti et al. (1994) found in a case control study and analysis of mortality data that differences exist in the risk of various types of cancer for Italian immigrants. In general, first-generation immigrants maintain a level of risk similar to their country of origin, whereas the risk in second-generation immigrants falls between the Italian and Canadian levels.

An examination of cardiovascular mortality rates reveals lower rates for first-generation Canadians from Latin America, China and South Asia, higher rates for those from Scandinavia and Africa, and comparable rates for Eastern and Western European immigrants, compared to the Canadian born. Generally, mortality rates decrease over time (Nair, Nargundkar, Johansen et al., 1990). South Asians are identified as being at high risk for coronary artery disease by Jolly, Pais and Rihal (1996).

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Mental Health

Research on the mental health of immigrants is more plentiful, with a special emphasis on refugees. A review article by Tousignant (1997) suggests that immigrants coming to Quebec enjoy a level of mental health similar to the host population, with refugees being the exception. However, a study of Canadian suicide mortality rates and trends (Strachen, Johansen, Nair et al., 1990) shows that first-generation immigrant women have higher mortality rates from suicide than their Canadian-born counterparts, with the highest rates being among Asians. The only age group to have higher suicide mortality rates than those born in Canada are immigrants over the age of 65.

Concern has been expressed that mental health research on children and youth, women and other population sub-groups is lacking. Beiser, Dion, Gotowiec et al. (1995, p. 67) note that “research about immigrant and refugee children is scant and the results are inconsistent and often conflicting.” Other researchers indicate that an understanding of the mental health implications of international migration is severely limited and that information on Asian immigrants is even more limited. In-progress research funded by the Metropolis Centres of Excellence will contribute important new knowledge when the studies are completed. There is a need for studies of Asian immigrants that use representative samples (Noh and Avison, 1996).

Mental health outcomes for refugees are a special concern. Lübben (1996, p. 2) notes that “while there has been more than fifty years of clinical research on persecuted children ... there is still so much more to learn.” While many refugees

Hyman, Beiser and Vu provide a review of the literature on sources of stress, and on risk and protective factors for the mental health of refugee children. The review notes contradictory findings related to health outcomes and adjustment among the children in this group. Certain authors consider some of these children to be especially resilient; others suggest that additional research is needed on the refugee experience of youth and the factors that contribute to good and poor outcomes.

have few mental health problems, their individual experiences put some at risk. In a review article on acculturative stress among refugees that cites research from the 1980s, Williams and Berry (1991) identify many characteristics of the refugee experience that suggest this group is at risk for poor mental health outcomes. Refugee youth may be at risk for alcohol abuse, drug addiction, delinquency, depression, post-traumatic stress disorder and psychopathology (various authors cited in Edwards and Beiser, 1994). Risk factors include the extent of pre-migration trauma, witnessing violence, separation from parents, etc. The ability to speak the host country language and a secure identity appear to be the most salient protective factors (Edwards and Beiser, 1994, and Hicks, Lalonde, Pepler et al., 1993, cited in Hyman, Beiser and Vu, 1996).

Hyman, Beiser and Vu (1996) also provide a review of the literature on sources of stress, and on risk and protective factors for the mental health of refugee children. Citing several authors, the review notes contradictory findings related to health outcomes and adjustment among the children in this group. Certain authors consider some of these children to be especially resilient; others suggest that additional research is needed on the refugee experience of youth and the factors that contribute to good and poor outcomes.

A literature review by Jacob and Blais (1991) notes that younger refugee children experiencing trauma exhibit physical symptoms such as sleep or eating disorders and developmental problems, while older children display depression, fear, anxiety, and learning difficulties, etc. Bernier (1992) points to the traumatic events experienced by Indochinese refugees, while Sadoway (1996) notes the increasing number of unaccompanied children making refugee claims in Canada. On the other hand, in another review article, Hyman, Beiser and Vu (1996, p. 7) note that “Despite the stresses they encounter along the developmental path, most children and youth in refugee families cope with the challenges of Canadian society.” Well-designed settlement and support programs can enhance adjustment and prevent mental health problems.

The Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees (1988a) concluded that the following factors affect the mental health of immigrants and refugees (determined through review of the literature and public hearings):

- negative public attitudes toward immigrants and refugees
- separation from family and community
- inability to speak French or English
- unemployment and underemployment
- being adolescent or elderly at the time of migration
- being a woman from a culture in which gender roles and values differ from those in Canada

Oral Health

Two articles on oral health were found, suggesting that this is an area of health concern to some. One article notes that studies from a number of countries (including Canada) report that the oral health status of immigrants is worse than that of native-born Canadians and that immigrants make less use of dental services.

Little research has been done to document changes in the oral health of immigrants after their arrival (Locker, Clarke and Murray, 1998). All respondents in a small study of Hispanic American immigrants to Canada indicated that high cost inhibits regular dental care (Cairns, 1993).

Population Health-Related Research

Overview

Research on the most common categories of health determinants can be found for immigrants; however, the quantity and quality of the research vary from national population-based research to smaller, single country-of-origin/single-city studies. No single profile of the determinants of immigrant health is available, although such an analysis could be undertaken using existing data sources and emerging analyses.

In general, considerable information is available on income and employment, culture (the “ethnicity” factor in differences in health status) and social/family support. There is a moderate amount of Canadian research on the effect of the immigration experience on the health of immigrants, gender and personal health practices/coping skills. By comparison, there appears to be little research on the health effects of education, working conditions, physical and social environments (including discrimination and racism), genetics and early child development. Such analysis would be particularly salient as immigrants experience a decline in health status over time. Given the dearth of information on what is needed to maintain immigrants’ health, it is not surprising that little has been written on action strategies for disease prevention and health promotion. In addition to overall perspectives, more attention is required on potentially high-risk immigrant sub-groups: low-income children and families, refugees from developing countries, women, older immigrants and those who are socially isolated.

Metropolis-funded research will make a significant contribution to knowledge of the determinants of immigrants’ health, and there is new interest in analyzing national population-based research from an immigration perspective. This analysis will likely indicate that some determinants will affect native-born and foreign-born Canadians in a similar way, but differences will also be apparent. Determining how these factors interact with those such as country of origin, the immigration experience and cultural differences will be an important addition to an overall understanding of both population health and immigration health. As a population health approach gains in popularity and more research is focussed on immigrants, studies such as the one by Chandrasena, Beddage and Fernando (1991) linking suicide deaths to employment, housing, education, social integration and a support network among immigrants will become more common.

The following sections are organized according to the determinants of health presented in *Towards a Common Understanding: Clarifying the Core Concepts of Population Health, A Discussion Paper* (Health Canada, 1996), with the addition of a new determinant — the immigration experience itself. The groupings are presented in order of the extent of their coverage in the immigration research scanned.

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The Immigration Experience

While not included in academic and governmental documents on the determinants of health, sufficient research was found to warrant inclusion of the experience of immigration itself as a central determinant of health for recent immigrants. For some immigrants — especially refugees, older immigrants, immigrants separated from their families and those with little social support in a new country — the experience of immigration has detrimental effects on health.

Migration and post-migration experiences may help to explain the decline in health status among immigrants after arrival. This situation has particular policy implications, for example, if Canadian systems and services are shown to contribute to the decline in health or if positive interventions are found to bring about improvement. The scope for further research in this area is extensive, and research findings may also have application to the population as a whole.

Pre-Immigration Experiences

Refugee experiences of deprivation, exposure to violence and torture, the stress of relocation and general immigrant experiences of family separation, integration, cultural conflict, communication barriers, and lack of knowledge of services, etc., have all been studied. Some empirical research supports the contention that the immigration experience can negatively affect health status for certain immigrants. For example, in analyzing population-based data, Beiser, Devins, Dion et al. (1997), found that resettlement stress has a negative impact on immigrant health status, by lowering health-enhancing factors and increasing health risks. Other aspects of the immigration experience that affect health include: sudden dietary changes; exposure to local pathogens; catastrophic stress leading to depression, anger, anxiety and psychosomatic symptoms; post-traumatic stress disorder; poverty; inter-racial conflict; intergenerational conflict; and communication difficulties (various authors cited in Beiser, Dion, Gotowiec et al., 1995).

A review article analyzing various studies from Canada, the U.S. and Australia found significant similarities between suicide rates of immigrants and those of their country of birth, indicating, for the author, the important influence of pre-migrant social and cultural experiences (Burvill, 1998). Rousseau, Drapeau and Corin (1997) note that most research on the effects of immigration-related trauma looks at the psychological outcomes. However, little research is available on the cultural and experiential differences that contribute to healing.

A study of 111 Iranian immigrants who were referred for psychiatric assessment reveals that 10% had experienced trauma as a result of political upheaval in their country of origin (Bagheri, 1992). This and other research points to the need for a greater understanding of the pre-immigration experiences of different sub-populations of immigrants.

Post-Immigration Integration and Adjustment

A number of researchers in the field believe that experiences associated with resettlement have a greater effect on mental health than situations experienced prior to entering the host country (several authors cited in Beiser, 1993). Some research has been done on policies and programs affecting the immediate immigration

experience and there has been considerable study of settlement and integration issues (reported in the mental health status section). In general, the integration process can be either a positive, healthy process or a negative experience that leads to additional stress, depression, isolation and health consequences. A review article reporting analysis of 1986 Census data and secondary research findings suggests that future research should focus on:

- the complex processes of social reproduction and acculturation, as well as ties between goals for socialization and aspects of mobility (Lamotte, 1991)
- the impact of work and job training, and community and leisure participation on the well-being of the new immigrant (Ruble and Shaw, 1991)

The Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees in Canada (1988a) concluded that while migration itself may not increase the incidence of mental disorders, psychiatric illness might result when the experience is combined with factors such as a drop in socioeconomic status, lack of employment opportunities appropriate to education, separation from family and friends, and migrating during adolescence or after age 65.

In the present review, several inquiries were found that relate to factors aiding adjustment including:

- familiarity with Western culture, belief in self, having a supportive husband and involvement in community activities (Naidoo, 1992)
- pre-immigration experiences such as reasons for departure, age, gender and marital status and post-immigration factors such as integration policies, family life, social relationships, future plans and isolation (Jacob, 1994)
- knowledge of French (in Quebec), educational level, visibility, the prevailing economic situation and family network (Lamotte, 1991)

The issue of maintaining ethnic identification was examined by a number of authors and generally was found to be positively associated with well-being (Anderson, 1993, and others). Additional research on individual and group factors that facilitate integration and their relationship to health status would be of use. High-risk groups such as those with poor pre-immigration experiences might also be studied.

Culture

The effects of culture (especially among minorities) on other health determinants, health risks, values and beliefs, health behaviours, and use and effectiveness of services, etc., is a growing research area, but one that was not specifically explored in this scan of immigration health. It is evident of course that ethnocultural research has a great deal of relevance to the subject of immigration health. Therefore, a synthesis of Canadian research on culture and ethnicity as they relate to health would be useful within the context of Metropolis (and the population health field). Community-based research would be of particular value in this type of review, with attention to the major ethnic groups currently immigrating. The limited findings from this scan are presented below.

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Ethnicity

Sintonen (1993) provides an overview of the changing foci in North American ethnicity research since the 1970s, and highlights the increasing attention to culture and identity. Some evidence was found indicating that perception of quality of life, and the ways in which health is understood and expressed, vary from culture to culture (Kopec, Williams, To et al., n.d.).

Several studies examine culture-based beliefs and behaviours related to health and health care services, and additional Metropolis research on this topic is currently under way. Leonard and Cheung (1990-91) provide a somewhat outdated bibliography of English-language books and journal articles dealing with ethnicity and adaptation, which could be updated. Also, Cook (1994) and Chung (1994) both found that culturally specific belief patterns about illness and health, as well as patterns of health-seeking behaviours, influence patients' approaches to illness and therefore the appropriateness of care received. For example, a random-sample study of 434 mothers of infants in Toronto indicates that country of birth influences breastfeeding duration (Barber, Abernathy, Steinmetz et al., 1997). Bernier (1992) points to the need to understand the meaning of physical illness, the cultural reticence toward mental health consultation and the possibility of long-term vulnerability to post-traumatic stress disorders among Indochinese refugees. Anderson (1996) examines the concept of empowerment for patients living with a chronic disease, from the point of view of immigrant women.

Income and Social Status

Income

Numerous studies on the socioeconomic characteristics of immigrants have been done, and national population data have been analyzed to determine if the income levels of immigrants are comparable to those of other Canadians. Other analyses examine the time it takes the income of immigrants to match native-born income, the differences in income among various sub-populations and the relationship between income levels and health status.

There appears to be an overall concern that research on factors influencing the income of immigrants is complex — i.e., that these factors are unclear and that misconceptions may result about the income adequacy of all immigrants and its relationship to health outcomes. Hou and Balakrishnan (1996) state that multivariate analysis is essential in understanding these factors. Dunn and Dyck (1998), in their analysis of national data, conclude that “socioeconomic factors are important to self-rated health status and presence of chronic conditions for both immigrants and non-immigrants, but more so for immigrants” (p. 32), but “there is no obvious pattern of association between socioeconomic characteristics and immigration characteristics on the one hand and health status on the other” (p. 35). In another study, Kopec, Williams, To et al. (n.d.) did not find that there was a clear association between the health status of recent immigrants and their position on successive steps up the income and education ladder. However, this finding bears further explanation. In the general population, health consistently improves at each higher level of income (Federal, Provincial and Territorial Advisory Committee on Population Health, 1999).

Analysis of 1986 Census data indicates that the overall **family** income of immigrants is higher than that of non-immigrant families, likely because immigrant families have more working-age members and members who work full time, all year. Place of birth is significant as well: immigrant families from the U.S., the U.K., Europe (other than the South), and Africa all have the highest immigrant family incomes (Basavarajappa and Halli, 1997).

Important differences in income level among immigrant sub-groups are apparent and could be explored further. For example, analysis of 1986-91 Census data shows that immigrants from Third World refugee-producing countries have consistently lower incomes than those born in Canada, and the authors wonder if this trend is leading to “a new underclass” (Neuwirth and De Vries, 1994). Richmond (1991, 1992) found that recent immigrants from Third World countries tend to be disadvantaged, while Maxim (1992) and Hou and Balakrishnan (1996) report that foreign-born, visible minority group members earn less than others in the wage labour force. Through analysis of government statistics and previous research, one author concludes that racial discrimination in the labour market is pervasive and especially harmful to new racial minority immigrants who face compound obstacles (Daenzer, 1991).

According to national statistics, more recent immigrants have much lower incomes than previous arrivals and non-immigrants. A major theme discussed in the literature is the time required for immigrants to match the earnings of comparably qualified native-born persons. The answer depends on a host of considerations, including the attributes of immigrants, the economic climate at the time of their arrival, and discrimination. While researchers have resorted to a variety of techniques to uncover these effects, there is “no consensus on the exact length of the adjustment process. ... Preliminary research indicates that immigrant incomes rise very markedly during the first three years following arrival, after which they continue to increase at a much lower rate” (Citizenship and Immigration Canada, 1997, p. 63). Analysis of the data from the longitudinal Immigration Data Base (based on 1980 arrivals) shows that immigrant earnings caught up or surpassed the overall Canadian employment earnings average after 10 to 14 years (unpublished data, Citizenship and Immigration Canada, 1999). However, trends indicate that it might take recent immigrants much longer.

Little analysis has been done on poverty levels among immigrants in general and significant sub-populations such as single-parent families and recent immigrants, etc. However, data from the 1994 National Population Health Survey indicate that recent immigrants are twice as likely to be poor than Canadians in general (Beiser, Devins, Dion et al., 1997). Twenty-five percent of all immigrant and refugee families, and 51% of those who arrived between 1991 and 1996 are living in poverty compared to 11% of non-immigrant families (Martin Spigelman Research Associates, 1998). In addition, 1986 Census data show that one third (31%) of all immigrant children live in low-income families, compared to 19% of Canadian families overall. In 1985, nearly half (46%) of immigrant children from Montreal lived in families with incomes below Statistics Canada’s Low Income Cutoffs (Burke, 1992).

According to national statistics, more recent immigrants have much lower incomes than previous arrivals and non-immigrants. A major theme discussed in the literature is the time required for immigrants to match the earnings of comparably qualified native-born persons. The answer depends on a host of considerations, including the attributes of immigrants, the economic climate at the time of their arrival, and discrimination.

Clearly, a better understanding of the nature and extent of racism and discrimination experienced by immigrants is required to determine the direct effects on physical and mental health and the indirect impacts on the determinants of health: income, employment, social support and access to health services. Increasing numbers of visible minority immigrants make this research critical.

Poverty rates of certain ethnic groups are striking. In 1991, 41% of Latin/South/Central Americans, 41% of those with West Asian origins and 39% of Arabs lived in poverty (70%-75% of these individuals were immigrants), compared to a national poverty rate of 16% (Kazemipur and Halli, 1998). The authors of this study conclude that for groups such as Vietnamese, Spanish, Chinese, Black and Filipino, “poverty is very likely to become persistent, extending over generations” (p. 26).

Limited research was found on immigrant women and income/social status; however, some surprising findings were discovered. Gibbs (1996) found that in spite of continued differential treatment (related to socioeconomic marginality and opportunities for social mobility), African Caribbean women in the study are able to narrow the gap with Anglo women in occupational stratification and mean earnings. Another analysis based on Census data indicates that because of immigration trends and pension policies, the incomes of many foreign-born older women are low (Boyd, 1991).

Social Status and Discrimination

Little empirical research addressing discrimination and the health of immigrants was available, with only a few small Canadian studies in evidence. While discrimination was found to be the subject of more research in the U.S., it most often focusses on the Black and Hispanic populations (Noh, 1999).

The “receptivity” of the receiving country is thought to have a large impact on newcomers’ mental health (Compere and Duval, 1992). Beiser and Edwards (1994) use longitudinal data from a Southeast Asian refugee resettlement project to highlight the issues of migration stress (displacement and resettlement) and catastrophic stress as they interact with individual and social factors. Baba and Jamal (1990) found “substantial empirical support for a negative linkage between alienation and mental health” among immigrants. Work and non-work factors influence the level of alienation (Abstract).

Hate crimes and violence cannot help but have a negative effect on immigrants. However, little research has been done to measure the nature and extent of hate crimes — especially toward visible minority immigrants — and their effect on health. One study estimates that about 60,000 hate crimes were committed in the nine major urban centres in Canada in 1994 — 61% of these comprised assault and mischief directed against racial minorities, and a further 23% were directed toward religious minorities (Canadian Heritage, 1998).

Clearly, a better understanding of the nature and extent of racism and discrimination experienced by immigrants is required to determine the direct effects on physical and mental health and the indirect impacts on the determinants of health: income, employment, social support and access to health services. Increasing numbers of visible minority immigrants make this research critical. The extent to which research on visible minorities in general can be applied to more recent immigrants should be determined and additional research conducted on specific immigrant sub-groups.

Employment and Working Conditions

Employment

As is the case for the population as a whole, unemployment appears to have negative effects on health among immigrants but it may affect them differently. Research demonstrates the negative effects of unemployment on mental health in particular. A large study of Southeast Asian refugees sheds light on this relationship: job loss increases the risk of depression in the group, and depression makes it more difficult to maintain employment. However, resident Canadians are more affected by loss of self-esteem and loss of social contact than immigrants, and underemployment does not seem to affect the mental health of refugees (Beiser, Johnson and Turner, 1993). Further research could explore these differences in greater detail.

Citizenship and Immigration Canada (1997) concludes that there is little difference in overall unemployment rates between immigrants and non-immigrants 15 years of age or older, although rates are somewhat higher for immigrants in the 15 to 24 year age group. But once again, general findings for this group can be misleading. Recent immigrants report higher unemployment rates than non-immigrants. Analysis of 1986-96 Census data on recent immigrants (those arriving in Canada within the previous five years) indicates that “in 1996, immigrants found it substantially more difficult to secure jobs than did their predecessors in the 1980s” (Badets and Howatson-Leo, 1999, p. 17). Immigrant women are especially hard hit, with their employment rate lagging substantially behind that of immigrant men.

Expectations may play a particularly important role in immigrants’ perceptions related to employment. Short-term unemployment or underemployment upon arrival may be expected, whereas longer-term un/underemployment has a more negative impact. Additional research might focus on changes to employment status over time, the effects on the family as a whole (one result of un/underemployment in immigrant families is more members working to increase overall income), and particular effects on recent immigrants and youth.

In terms of the effect of immigration on unemployment, Bensen and Dupuis (1998, p. 68) point out that “the majority of studies done to date are sceptical that immigration has an impact on the unemployment rate, particularly in the long run.” The recent B.C. study concludes that an increasing number of newcomers face labour markets unable to supply sufficient employment opportunities, employers unable or unwilling to verify foreign credentials, and declining quality and quantity of labour market support and training services.

Working Conditions

Research indicates that, overall, the occupational distribution of immigrants does not differ greatly from that of the Canadian-born work force (Beujot, 1992, cited in Globerman, 1998). However, the types of jobs available to recent and poorly educated immigrants and the effects on health have been the focus of very limited research on occupational health and the work environment. An analysis of job stratification among immigrants, by age, gender, education level, country of origin and associated health conditions/problems would be an important addition in the health field.

Citizenship and Immigration Canada concludes that there is little difference in overall unemployment rates between immigrants and non-immigrants 15 years of age or older, although rates are somewhat higher for immigrants in the 15 to 24 year age group. But once again, general findings for this group can be misleading. Recent immigrants report higher unemployment rates than non-immigrants.

Minority populations that must accept weekend and shift work to be employed have been found to experience stressors similar to those experienced by non-minority populations: higher job stress, lower job satisfaction, and less leisure time with family (Jamal and Badawi, 1995). Another study by the same authors found a positive relationship between job stress and psychosomatic health problems among Muslim immigrants (Jamal and Badawi, 1993).

The potentially higher rates of industrial accidents among immigrants are cited in an article by Krahn, Fernandes and Adebayo (1990). Immigrants were found to be over-represented in the manufacturing and construction industries where safety risks are high. The authors speculate that increased accident rates are related to language difficulties and reduced knowledge of potential workplace hazards. More research in this area may be warranted.

Bolaria (1990) notes that evidence from selected cases — agricultural, garment and domestic workers — suggests that immigrants in particular are exposed to numerous health hazards. He also notes that immigrant women are exposed to more hazardous working environments than immigrant men.

Social Support Networks

In the general population, the role of social support as a contributor to health has been well established. This finding appears to be borne out among immigrants as well. Separation from family is a particularly important stressor on the initial immigrant (often the husband and father), who comes to Canada to get settled and then applies for sponsorship of his wife and children — a process that can be quite lengthy. Studies of South East Asian refugees demonstrate that the rate of depression is much higher among those who have come alone than among those who arrive with their families. Reunification with family is followed by improved mental health (several authors cited in Beiser, 1993).

In their longitudinal study of Korean immigrants, Noh and Avison (1996) conclude that social and psychological resources have important deterrent effects on stressors and their outcomes. Family and social support is found to add to successful adaptation of refugee youth (Fox, Cowell and Montgomery, 1994, cited in Hyman, Beiser and Vu, 1996). Once again, research points to differences among immigrants: in one analysis of national data, non-European immigrants were found to be less likely to have close personal support than immigrants from Europe (Dunn and Dyck, 1998).

Social support has particular meaning for immigrants because their previous social and, in many cases, family support networks have been disrupted; in the case of refugees, this disruption is involuntary and likely permanent. A recent non-random survey of immigrants in British Columbia concludes that “Many low-income immigrants and refugees have no family, community or support in their new homes and are profoundly isolated and alone” (Martin Spigelman Research Associates, 1998, p. ii).

Social support in the new country must be rebuilt and linkages made with similar ethnic groups and the community as a whole. Several studies find that immigrating to a region where there is no like ethnocultural community of one's

own culture has a detrimental effect on mental health (Baker, Arseneault and Gallant, 1994; Tran, 1987, and Allodi, 1989, cited in Beiser, Dion, Gotowiec et al., 1995; Rublee and Shaw, 1991). Other research indicates that a combination of same-group identification and integration into the larger society provides the best adjustment (well-being), although some experts dispute this.

Once again, immigrant sub-populations require further attention to identify barriers to establishing social support for different groups in different situations. For example, one study shows that limited education and low income may contribute to greater feelings of social distance from other groups (Jerabek and De Man, 1994). Community support appears to be fostered by situations such as the presence of an educated elite with a high level of economic integration, core cultural values and positive expectations on the part of government (Dorais, 1991).

Family support is another significant contributor to health among immigrants. Marriage does appear to reduce mortality in immigrants as it does in the general population, according to an exploratory study by Trovato (1998).

Personal Health Practices

Information from large sample surveys was available for smoking, alcohol use, obesity, nutritional intake, physical activity, leisure activities and pap tests. The 1994 National Population Health Survey collected information on immigrants' smoking, leisure time use and physical activity levels and found that immigrants generally arrive with healthier behaviours than Canadians but that these advantages are lost over time. Immigrants are more likely not to have smoked before coming to Canada, with no association between smoking behaviour and socioeconomic/demographic characteristics. However, the likelihood of smoking increases with length of residence in Canada (Chen, Ng and Wilkins, 1996). Compared to the general population, new immigrants smoke less, use alcohol less and are less likely to be obese. However, they are also less likely to engage in regular physical activity and immigrant women are less likely to receive regular pap tests. Immigrants from countries other than Europe and the U.S. are more likely to smoke, use alcohol or be obese (Dunn and Dyck, 1998; Beiser, Devins, Dion et al., 1997).

A study based on the 1990 Ontario Health Survey data also shows that immigrants — especially Asians — are less likely to be overweight than Canadian-born individuals (Pomerleau, Ostbye and Brightsee, 1997). A low rate of drinking is also evident among foreign-born youth (Cheung, 1993). Using data from the Ontario Health Survey, Pomerleau, Ostbye and Brightsee (1998a, 1998b) determined that immigrants are generally more likely to meet recommendations for fat and carbohydrate intake, but are at increased risk for protein, iron and calcium intake (with variations by country of origin) compared to non-immigrants.

Little detailed information is available for immigrant sub-populations, although there are clues to their importance in understanding health risks in this diverse population. For example, in a study of 226 new immigrants, Matuk (1996a) determines that although newcomers have a high abstention and low drinking rate overall, alcohol use is a pertinent health promotion area, especially for women.

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Millar (1992) notes that “national smoking rates conceal wide variations in smoking prevalence by ethnic group” (Abstract). The authors of the above nutrition study recommend further research on the nutritional status of immigrant sub-groups in order to develop culturally sensitive health and nutrition programs (Pomerleau, Ostbye and Brightsee, 1998a, 1998b). In addition, Pomerleau, Ostbye and Brightsee (1998a, 1998b) and Husbands and Idahosa (1995) note that the literature on ethnicity and recreation shows that different groups have differing concepts of recreation and engage in different activities. To be effective, recreation programs and policies should take into account the changing ethnic composition of the community.

The research suggests a need for greater exploration of the factors contributing to changes in healthy behaviours, as well as an examination of the attitudes and lifestyle factors among immigrants who smoke, use alcohol or are overweight. Beardall and Edwards (1995) note the paucity of Canadian research examining the cultural and social factors influencing smoking patterns. Ferrence, Brewster, Edwards et al. (1996) studied cultural factors in tobacco use among a small number of ethnic group members — research that could be expanded to include a larger population.

Social and Physical Environments

Social and physical environments exert a wide variety of influences over health. These include the natural environment, environmental hazards, the nature of cities and communities, and the social environment, and could conceivably include the societal and political structure, and the nature of public participation, etc. Some of these issues have been dealt with in other parts of this report; for example, those related to working conditions, discrimination and social support networks. Not all of these issues are particularly relevant to immigrants, unless their exposure to unsafe or unsupportive environments is different from the general population. Also, this exposure may be better attributed to poverty and disadvantage than to immigrant status itself. Additional research on the social environment — especially the receptivity of the host community — seems especially important.

Environmental factors related to changes in cancer risk after immigration to Canada are alluded to but not explored in any detail in research reported under “Health Status.” Several studies have been completed or are under way that deal with immigrants and housing. In a non-random study in British Columbia, almost half (47%) of the respondents state that their housing was better in their country of origin than it is in Canada (Martin Spigelman Research Associates, 1998).

Housing adequacy and availability constitute an important aspect of the successful integration process and are known to contribute substantially to overall health. One analysis of 1986 Census data indicates that ethnic group membership is more important to home ownership status than the period of immigration, leading the authors to speculate that minority group status and discrimination in the housing market may be important factors (Balakrishnan and Wu, 1992). Another analysis of the same data shows that immigrants from the developing world are substantially less likely to be home owners (Ray and Moore, 1991). An understanding of “cultural complexity” and immigrant backgrounds is recommended as

a prerequisite in creating successful non-profit and cooperative housing projects (Rodman and Cooper, 1995). An exploratory study of immigrant women and housing concludes that racial minority immigrant women experience general gender- and class-based housing bias and acute instances of housing-related crises (Novac, 1996). New Metropolis research will add further knowledge in this area.

Gender

Some attention has been paid to the influence of gender on immigration health, primarily as a result of research funded through the Metropolis Project and the Centres of Excellence for Women's Health (the Montreal Centre has made women immigrants one of their research priorities). Gender is particularly relevant in immigration research because of policies that may create bias against women, barriers in access to services and the cultural conflict that may arise when women immigrate from countries with very different expectations of sex roles. Health issues of particular concern to women that are addressed in the research include: sexual and reproductive cancers; differences in income, education and employment; mental health; perceptions of wellness/illness; caregiver roles; family violence; pregnancy; and female genital mutilation among others.

Gender bias has been explored in relation to immigrant women's low union participation rate. One Toronto-based study attributes the bias to gender, class, ethnicity/race, the immigration process and economic marginalization (Modibo, 1997). Participants in a New Brunswick study of abused immigrant women indicated that the ability to leave an abusive partner is limited by dependency on the abuser for financial support and immigration support and a lack of knowledge of the justice system (Miedema and Wachholz, 1998).

Several studies investigate the differences in the experience of being a refugee for women and men: important factors include very different gender identities inherited from the home culture, compared to Canadian norms, as well as differences in perceptions of new opportunities in their new country (McSpadden and Moussa, 1993). Cross-country research indicates that while women and children comprise about 80% of refugee populations under United Nations care, they account for only 57% to 59% of all immigrants. This apparent "male bias" may demonstrate that settlement services are mainly geared to men's needs, so that women's needs are not being met in the receiving country (Keely, 1992). Allodi and Stiasny (1990) studied case records of 28 Latin American refugee women and found that the torture experienced by migrating women is most often sexual, which affects their sexual adaptation.

On the subject of mental health, a study by Noh, Wu and Kaspar (1992) notes that immigrant women in general tend to exhibit higher levels of emotional disorders than men. Studies of Asian women immigrants have shown the same pattern perhaps because of a lack of power and "role overload" (i.e., the double burden of engaging in paid work and having family responsibilities). This longitudinal study of Korean immigrants notes that, overall, rates of depression are not substantially different from North American rates in general and, further, that rates vary by subgroup.

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A review of studies of fertility patterns among immigrant women indicates that fertility immediately following immigration does not appear to be disrupted by the immigration experience (Ng and Nault, 1997); however, this finding may point to the need for further research on the possible unmet needs of recently arriving women who require prenatal and postnatal care.

Noivo (1994) explores how immigrant and minority group status, gender proscriptions and working class membership result in added burdens for women in immigrant families. These factors may even lead to family violence. Research by Anderson, Blue, Holbrook et al. (1993) sheds some light on the factors that influence the management of illness among first-generation Chinese women in the labour force. In many cases, life circumstances prevent them from properly managing their illnesses. They experience difficulty accessing health facilities, learn little from health professionals and have few resources to help them understand their condition.

Only one article was found that relates to female genital mutilation (FGM) (Gibeau, 1998). (It is likely that other articles are available but are indexed under ethnocultural categories.) This author reviews the health consequences of FGM, and highlights the need for practitioners to understand the demographics and prevalence rates of the practice to ensure that immigrants from those countries are understood.

Education

Less research was found on the impact of education on the health of immigrants than was expected. What was identified supports the contention that those with higher levels of education enjoy better health, as do Canadians in general. A literature review by Jacob and Blais (1991) found that studies on the health of refugees prior to 1991 indicate that lack of education and functional illiteracy in English and French (but not the length of stay in Canada) are major factors in refugees' perceptions of their well-being.

As a result of the selection process, immigrants are better educated overall than the Canadian-born population; however, education status among immigrants tends to be polarized. Fourteen percent of immigrants over 15 are university graduates, compared to 11% of non-immigrants. However, a greater proportion of immigrants have less than a Grade 9 education (19% versus 13%) (Citizenship and Immigration Canada, 1998b). Other research linking landing records with tax files shows that nominal earnings differences between less educated and highly educated immigrants widen over time.

Not surprisingly, immigrants' knowledge of both official languages yields higher employment earnings, lower incidence of EI payments and less reliance on social assistance (Citizenship and Immigration Canada, 1999). Language proficiency continues to affect earnings even after a lengthy residence (more than 14 years) in Canada (Citizenship and Immigration Canada, 1997).

Additional analysis of the relationship between education (especially language education) in Canada and the health of immigrants is required at a national level, with particular attention to individuals with low educational attainment and language/literacy problems. The linkages between education, un/underemployment,

earnings, health and well-being should also be explored. Other studies could be undertaken to investigate the influence of education on health behaviours and coping, integration and its interaction with culture and gender — for example, how do cultural and gender expectations affect education, health beliefs and health behaviours? As well, little is known about health education/knowledge levels that can lead to disease prevention. (This subject is explored further in the section on disease prevention/health promotion.) Those with little English or French language proficiency, those from distinctly different cultures, and women and children would be particularly important sub-populations for study.

Healthy Child Development

A good deal of the research related to immigrant children addresses mental health issues and integration/adaptation and is discussed in other sections of this report. After a review of studies on the mental health difficulties of immigrant and refugee children, Freire (1993) concludes that they bring unique challenges to bear on adaptation and health, in addition to strengths, as a result of the immigration experience.

Compared to available research on Canadian children in general, surprisingly little research was found that directly addresses the topic of immigrant children. An analysis of national data comparable to statistics found in either *The Progress of Canada's Children 1998: Focus on Youth* (Canadian Council on Social Development, 1998) or *The Health of Canada's Children: A CICH Profile*, 2nd edition (Canadian Institute of Child Health, 1994) (a third edition is currently being prepared), or greater inclusion of separate data on immigrant children in general publications would allow comparison with Canadian-born children and provide valuable information to policy makers.

Other than mental health, little research found in this scan relates to health risk factors for children. According to the few studies reviewed, the offspring of foreign-born mothers do not appear to have a higher risk of low birthweight and prematurity (Doucet, Baumgarten and Infante-Rivard, 1992). But Edwards and Boivin (1997) conclude that cultural variables among immigrants might predict about one quarter (24.2%) of different infant care behaviours. Among recent immigrants, significant concerns include worries about infant health, the mother's education, and a combination of number of births and current immigration status.

Given the federal government's initiatives related to children, a separate analysis of literature on immigrant or ethnocultural children may be warranted, with recommendations for further research.

Biology and Genetic Endowment

Biology and genetics do not appear to have been a strong line of inquiry related to immigration health in the sources reviewed for this report. However, several studies did examine the differences in cancer rates among countries of origin, the eventual convergence of these rates with Canadian rates and differential rates between first-generation immigrants and their offspring (Geddes, Balzi, Buiatti et al., 1994; Balzi, Geddes, Brancker et al., 1995; Kliever and Smith, 1995a, 1995b; Matuk,

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1996b). Gliberman (1998) notes that different genetic characteristics between immigrants and native-born Canadians might contribute to specific health care requirements, but does not explore the issue further.

Health Services

All research related to health services is discussed in the section on health system support and renewal.

Action Strategies for Disease Prevention/Health Promotion

While a few research studies deal specifically with disease prevention and health promotion strategies appropriate to immigrant populations, discussion of these strategies more commonly results from findings related to another health research topic, such as smoking. It is possible that some research relevant to this topic was missed when evaluation research was excluded from the search and other studies were captured in the culture and personal health practices categories.

It may be advantageous to conduct a review of the collected literature (and additional evaluation studies) to synthesize knowledge of health status, risk factors, demographic data, known health behaviours and effective health promotion methods, and suggest gaps in knowledge among recent immigrants. Additional research might be done most appropriately as an action component to other studies.

Some references to prevention and promotion literature found in the scan deal with mental health interventions, HIV/AIDS and cancer prevention. The highlights are presented below.

Dyck (1993) provides some insights into factors to consider in using health promotion strategies with Indo-Canadian mothers, looking at household structure, the division of labour, child care strategies and parenting concerns. She emphasizes the importance of working with the community to develop and support programs. Williams and Berry (1991) suggest that refugees are particularly in need of public health interventions to reduce the likelihood of poor mental health outcomes as a result of their experiences. “Refugee mental health requires a cross-cultural perspective rooted in a full understanding of the groups in contact” (p. 639).

Cultural, experiential and communication differences may lead to variations in knowledge and attitudes to health risks. However, only a few studies that investigate these differences were found. For example, Adrien, Boivin, Hankins et al. (1994) studied knowledge levels related to HIV/AIDS among Haitian-born Montrealers and found, in general, high levels of AIDS knowledge as well as a few misconceptions about HIV transmission. A study of HIV/AIDS in six ethnocultural communities indicates that prevention strategies must address sociocultural differences — in particular sex role differences between men and women (Singer, Willms, Adrien et al., 1996).

In analyzing results from the Newcomers Health Survey and other research, Matuk (1996b) found that women from ethnic minority groups are least likely to have had a pap test and have lower cancer survival rates as compared to women from non-minority groups. The author also notes that newcomers to Canada may not see preventive health practices such as pap tests as a priority, given other

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stresses and demands. More research is required on cancer screening practices among ethnic minorities.

Kliewer and Smith (1995a) found that breast cancer mortality rates in 16 out of 20 immigrant groups studied (both higher- and lower-risk countries of origin compared to Canada) converged with the Canadian rate. This indicates that environmental and lifestyle factors associated with the new place of residence may influence the breast cancer rates of immigrants, and also suggests that, since most immigrants migrate as adults, the risk of breast cancer can be altered later in life.

Health System Support and Renewal

This section discusses research on health services utilization, quality and accessibility, provider attitudes and knowledge, alternative therapies and foreign-trained health care providers. Overall, compared to population health, little research was found related to this topic. Given the potential impact of health care restructuring, spending reductions or slowdowns in some jurisdictions and the shift in resources from institutional to community care, there is considerable scope for new research in this area. Several new studies on service needs and barriers and the effects of funding policies on immigration health are under way at the Metropolis Centres of Excellence.

Utilization

Research in Canada and the U.S. shows that immigrants are net contributors to government programs. For example, a study of demographic and utilization patterns reports that cost-benefit analysis in Canada and the U.S. has suggested that new immigrants contribute more in taxes and productivity than they consume in government transfer payments and health care resources (Asch and Waitzkin, 1992). Also, according to a recent study done in British Columbia, on average, each business class immigrant invests about \$155,000 and creates or preserves five permanent jobs in the province (Martin Spigelman Research Associates, 1998).

Basic health care utilization data are available from two population-based surveys and several smaller studies. Generally, immigrants are considered to be under-users of the health care system. However, Weinfeld (n.d.), in a recent review of immigration literature, notes that it has not been established whether low levels of use reflect societal or cultural barriers, or actual reduced levels of need. Immigrants may under use the health care system because their health status is better or for other reasons that might be related to barriers to access and to cultural beliefs toward services, especially mental health services.

In the National Population Health Survey, hospitalization rates for non-European immigrants are significantly lower than for European immigrants and non-immigrants (Chen, Wilkins and Ng, 1996). Data from the 1990 Ontario Health Survey also show that visits to emergency departments are lower (Wen, Goel and Williams, 1996). No major differences were found in visits to general practitioners in the national data (Globerman, 1998), but in the Ontario study, immigrants were shown to have slightly higher visitation rates.

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Globerman (1998, p. 22) concludes that “over the complete life cycle, there may be little difference in health care utilization patterns both across immigrants groups, as well as between immigrants and native-born Canadians.” In a smaller study, Chinese seniors in British Columbia report health utilization rates similar to those of Canadian seniors in general (Chappell, Lai, Gee et al., 1997). Globerman (1998) found no national differences in the use of pharmaceuticals between elderly immigrants and the native-born. Older data from the 1985 and 1991 national General Social Survey indicate that immigrants do not constitute a special burden to the health care system as their health and usage of health services is not significantly different from non-immigrant groups (Laroche, 1997, cited in Globerman, 1998).

Research has shown that immigrants also under use mental health services. For example, a study of adolescent Asian Canadians admitted to a psychiatric inpatient unit in Calgary shows that, based on demographics, far fewer individuals were admitted than expected, and those who were admitted had more severe symptoms than a comparable non-immigrant population (Roberts and Crockford, 1997).

Some public fear has been expressed that immigrants — especially those from countries with a high prevalence of HIV — will develop AIDS and become a drain on the health care system. A study comparing the costs associated with HIV/AIDS and coronary heart disease in immigrants concludes that the economic impact of the two diseases is similar (Zowall, Coupal, Fraser et al., 1992).

Additional research on utilization of other types of health services (e.g., community health care, long-term care, disease screening, prevention and health promotion programs, and rehabilitation), would provide a more complete picture of service usage among immigrant populations. Delving into the reasons for differences in health care utilization would be useful, especially if under-utilization is caused by barriers to access, lack of appropriate care or low expectations of health care provision. In addition, investigating changing patterns in usage and needs according to length of time in Canada would provide pertinent information for service planning.

Effects of Health Reform

Little empirical research on immigration health appears to be under way to support evidence-based decision making in health care restructuring. Only three studies were found that were directly relevant to health care policy overall. (Other policy-oriented, secondary and consultative research may have been conducted but was not identified in this scan.)

Based on an analysis of immigration and health care utilization patterns in Canada, Globerman (1998) argues that decentralized health care planning and delivery may be better able to respond to the diverse needs of immigrant groups that cluster in geographic communities.

A comparison of seven countries indicates that countries like Canada with comprehensive health systems tend to adopt policies that afford immigrants better access to health services (Bollini, 1992). In a subsequent analysis, Bollini (1993) concludes that immigrant access to political representation also provides a better base for planning and evaluation of services.

Research on the changing health care system in Canada should include the perspective of immigrants. Topics might include:

- the impact of regionalization on health care services for immigrants
- the extent to which political participation is having an effect
- a comparison of immigrant health status and levels of risk (needs) with available services, effective prevention strategies, etc.
- the types of community services that recent and longer-term immigrants are likely to use
- the effect that changes in funding priorities are having on wellness and productivity

Metropolis research currently under way is addressing some of these issues.

Quality and Accessibility

Accessibility of health care is the subject of considerable health research, with the focus being on ethnocultural minorities more often than on immigrant groups. Access issues identified in immigration health literature include the different realities of immigrant sub-populations (e.g., women, low-income individuals and victims of torture); the lack of knowledge/responsiveness among health care providers in meeting the needs of those other than the mainstream population; and communication and literacy issues. The Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees (1988a) makes many recommendations related to changes in mental health services. In a recent synthesis of immigration research in Canada, Weinfeld (n.d., p. 23) suggests that “literature is inconclusive regarding the impact of culturally sensitive services [health and social services] on appropriate outcome measures for immigrants.”

The National Population Health Survey highlighted an important income difference in access. Results revealed that, in general, immigrants do not identify any more unmet health care needs than the general population; however, twice as many lower-income immigrants report unmet health care needs compared to those with higher incomes (Chen, Ng and Wilkins, 1996).

Access to services may be especially limited for immigrant women whose family and job responsibilities make it difficult to use existing resources. Research by Anderson, Blue, Holbrook et al. (1993) found that first-generation Chinese women immigrants have difficulty accessing health facilities, learn little from health professionals about their illnesses and have few resources to help them understand their condition. Torture victims were also found to have special requirements for rehabilitation that are not being met (McComas, 1997).

In consultations with more than 250 women conducted by the Ontario Women's Health Bureau in 1993, participants focussed on the “fundamental mismatch and tension between the beliefs, expectations and behaviours of Western-trained health care professionals and those of [immigrant, refugee and racial minority women]” (Abstract). Language barriers, cultural insensitivity, mental health problems and community empowerment were also discussed (Ontario Women's Health Bureau, 1993). According to Schreiber, Stern and Wilson (1998), “there is a paucity of literature available to assist nurses and other care providers in knowing how to meet the needs of depressed women from non-dominant cultural backgrounds” (Abstract).

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Drawing on existing research and statistics, Saldov concludes that serious communication problems lead ethnic elderly populations to receive “deficient treatment, extended hospital stays, unnecessary testing, premature discharge and problematic follow-up.” Interpretation services, both linguistic and cultural, are needed to provide the ethnic elderly with effective health care.

The importance of provider/patient differences is well illustrated in a study of 296 young immigrant families and 40 health care practitioners, which found marked differences in priorities between the families and practitioners. Families give more importance to children’s health, isolation, day care and education, whereas practitioners suggest that the mother’s health and the couple’s relationship pose greater concerns (Legault, Gravel, Fortin et al., 1997).

A study of barriers to health care access among Vietnamese refugees identifies problematic interpretation of patient symptoms by health care providers as a major barrier, in addition to lack of health care worker understanding of traditional remedies. Conditions such as unemployment, depression, surviving torture and being on social assistance exacerbate the problems (Stephenson, 1995).

A book edited by James Carl (1996), *Perspectives on Racism and the Human Service Sector: A Case for Change*, examines how race and racism have an impact on delivery of services related to immigration, settlement and health, among other topics. Cairns (1993) provides a literature review that includes information on cultural and professional beliefs/values, traditional oral hygiene practices and psychosocial determinants that can affect the delivery of dental health services. Research implications are also included.

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Access is an area in which the distinction between recent and longer term and visible minority/majority immigrant sub-populations is critical. Studies cited in this section provide a sampling of barrier and access issues that echo concerns raised by settlement organizations and groups representing disadvantaged populations in general. More research should be conducted to further explore lack of access and the need for appropriate services. Partnerships with community-based organizations/immigrant groups is particularly important in order to address potential cultural bias in research and ensure that the research itself is appropriate and accessible.

Alternative Therapies

There is an expectation that foreign-born Canadians will be more interested in, or more likely to use, alternative therapies — such as herbal medicine and acupuncture — that may have been common practices in their countries of origin but are less well known in Canada. Little research appears to have been done on this topic and what has been completed provides conflicting information.

Based on the limited research, it does not appear that immigrants are more likely to use an alternative health care provider than other Canadians; however, some are more likely to use non-conventional medications. Data from the National Population Health Survey show that only 6.4% of immigrants from the U.S. and Mexico (the most likely category of immigrants to do so), compared to 5% of

native-born Canadians, were using an alternative health care provider at the time of the survey. In contrast, about 30% of immigrants from South America, Africa and Asia report using remedies other than those commonly available in Canada (Globerman, 1998).

A non-random study of 932 mostly Chinese immigrants in Vancouver found that 28% are currently using Chinese herbal medicine. However, usage varies significantly according to age, sex, immigrant status and ethnicity. Patients with acute conditions consult both their family physician and herbalist, while those with chronic conditions start using traditional Chinese medicine after repeated visits to the doctor (Wong, Jue, Lam et al., 1998).

Since regulation of alternative therapies and products is a timely issue, additional research on usage among immigrant sub-populations and ways in which it complements (or replaces) conventional therapies would be useful.

Foreign-Trained Health Care Providers

The difficulties faced by foreign-trained physicians in qualifying in Canada are well known, and this situation is thought by some to have a negative impact on the provision of health care to immigrant populations. However, little research on the issue of foreign-trained health care providers and their impact on immigration health was found (again, this topic may be addressed more often in commentaries and in policy research). No original research on the topic was uncovered.

One commentary on the influence of immigration and licensing bodies on academic medicine notes that, as of 1989, physicians trained abroad comprised 24.6% of the active civilian physicians in Canada (varying from 53.8% to 12.1% by province). Between 1979 and 1989, immigrants indicating medicine as their intended profession increased by 54% (Kendel, 1992). (The source of the data is unknown.) On the other hand, Bolaria (1992, p. 220) states that “available evidence indicates ... opportunities for graduates of foreign medical schools are rather limited.”

Input on the relative importance of this topic should be sought from immigrant and ethnocultural groups and professional associations.

Management of Risks to Health

Overview

Overall, very little empirical research was found (in this search) that specifically addresses infectious diseases from the perspective of immigration. The articles that were found are concerned with tuberculosis and HIV/AIDS, and discuss the prevalence of conditions, screening, surveillance and treatment.

Infectious Diseases

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According to the literature uncovered in this scan, the infectious disease of greatest concern in relation to immigration appears to be tuberculosis. Concern about tuberculosis is reported to be primarily related to the substantial increase in immigration from Asia, Africa and Latin America — all high-risk regions. Groups at risk for tuberculosis include immigrants, particularly those with low incomes living in poor and crowded conditions. The primary risk to immigrants is attributed to likely exposure in the country of origin.

from Asia, Africa and Latin America — all high-risk regions (Fanning, 1998). Groups at risk for tuberculosis include immigrants, particularly those with low incomes living in poor and crowded conditions. The primary risk to immigrants is attributed to likely exposure in the country of origin (Wilkins, 1996).

Cowie and Sharpe (1998) examine the pattern of tuberculosis occurring in immigrants and the interval from arrival in Canada to diagnosis. Immigrants accounted for 70.6% of the cases diagnosed in southern Alberta in a five-year period. The majority were Asian in origin and the mean period between immigration and diagnosis was 11.2 years. Health care professionals need to be aware that immigrants remain at risk for tuberculosis many years after their arrival in Canada.

Manson Singer, Willms, Adrien et al. (1994) conducted research to determine the ethnoculturally specific risk behaviours for HIV transmission in the Chinese and South Asian populations in Vancouver. A number of factors were uncovered, including denial, the primary importance of economic and social integration, “astronaut” families (travel back and forth to the home country) and other culturally specific gender behaviours and sexual values and taboos.

Screening

According to the few studies found, screening is an important but not the only response to the transmission of tuberculosis and HIV/AIDS. Screening outside Canada is only one element in the prevention of infectious diseases in Canada. As research points out, no screening system is infallible and not everyone with active tuberculosis will be identified, making ongoing post-immigration surveillance essential. Screening is failing to prevent immigration of individuals with active tuberculosis, which contributes to a higher incidence in Canada. A study of 21,959 recently arrived immigrants from seven Asian countries shows the limitations of the immigration screening process and the benefits of early and ongoing surveillance (Wang, Allen, Enarson et al., 1991).

Zowall, Coupal, Fraser et al. (1992) assess the economic impact of HIV antibody screening among potential immigrants. Analysis reveals that screening costs would have been considerably less than treatment costs over the 10-year period after immigration. However, the authors state that they would not advocate screening on the basis of economic analysis alone; rather policies must incorporate social, legal and ethical considerations.

Nevertheless, there is support for continued screening. Physicians from Quebec were asked about their opinions concerning issues related to HIV screening for immigrants; 75% agreed with a screening policy (Boyer, Fortin, Duval et al., 1994).

Screening inside Canada is another proposed response to the increased incidence of tuberculosis. Testing for tuberculosis in two schools attended by 10 refugee children with active TB led researchers to recommend that health departments screen all foreign-born students upon entrance to school (Rothman and Dubeski, 1993).

Surveillance and Treatment

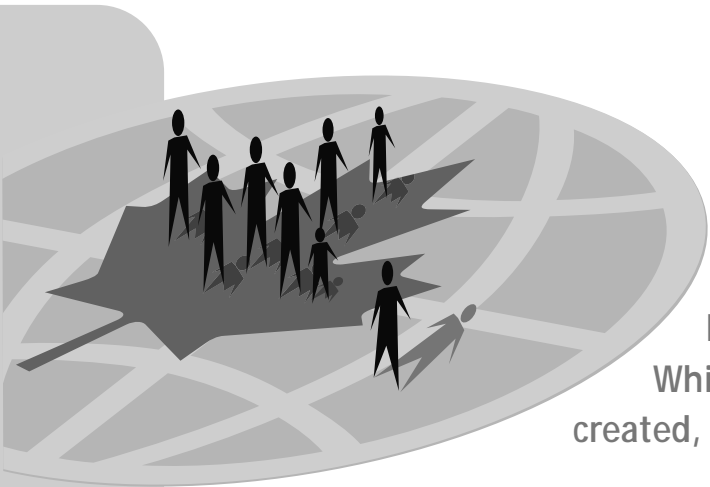
Some attention was paid in the literature to surveillance and treatment of tuberculosis and HIV/AIDS. Special concerns are apparent among immigrants.

One study points to problems in treating tuberculosis in immigrants. Almost half of immigrants in a surveillance program either did not attend appointments at all or did not attend for the entire follow-up period (Orr, Manfreda and Hershfield, 1990). A study by Long, Manfreda, Mendella et al. (1993) determined that drug resistance to tuberculosis treatment is significantly higher among immigrants than among other Canadians. Keane, O'Rourke, Bollini et al. (1995) conducted research on a tuberculosis screening and treatment program in Vietnam for immigrants bound for Canada and other countries. The study confirms the efficacy of short-course chemotherapy and directly observed treatment for tuberculosis. Follow-up in the receiving countries has been recommended to help clarify risk factors for both new infections and the relapse of TB.

4

Conclusion





Overview of Findings

This scan of immigration health research yielded an array of completed and in-progress studies related to the health of immigrants and, to a lesser degree, their impact on Canadian society.

While a significant body of knowledge is being created, many gaps and needs for information remain.

By undertaking in-depth reviews of completed research, synthesizing research findings and supporting research that contributes important new knowledge, researchers and government bodies can make a significant contribution to immigration health. The remainder of this report will present a summary of major findings of the scan and suggestions for future directions in immigration health research.

1 Predominance of Research on the Determinants of Health

While some research was found on each of Health Canada's three relevant policy interests, most of the available research is on the determinants of health — not surprising considering the breadth of the topics and the current interest in population health approaches. Research related to population health tends to focus on health status, income and employment, and “culture” as they relate to the health of immigrants and to their access to services. According to current studies, recent immigrants in general are healthier than the general population; however, they lose this advantage over time. Particular groups, such as refugees, are not as healthy, and other at-risk groups such as those from developing countries and those with lower incomes and higher levels of unemployment have not been thoroughly investigated. In addition, findings on the mental health status of immigrants are conflicting.

Considerable research has been done on the socioeconomic characteristics of immigrants, and it appears that while total family income of immigrants is higher than that of the general population, there is overall concern that factors influencing income and social status of immigrants are complex and warrant further study. Important differences in sub-populations also need to be explored.

Surprisingly little research was available on the extent and effects of discrimination and racism on overall physical and mental health, employment/earning power and settlement/integration of recent immigrants. As well, less knowledge was available on the (health) effects of education, working conditions, physical and social environments, genetics and healthy child development.

2 The Immigration Experience as a Determinant of Health

A systematic inquiry into pre- and post-immigration experiences is not yet apparent in the literature; however, available information indicates that these experiences, unique to immigrants, are a significant determinant in the health of this population, at least in the short term. Refugees may experience violence/torture, deprivation and extended poor living conditions, and immigrants in general can be affected by resettlement stress, new pathogens, poverty, inter-racial and inter-generational conflict and family separation — all of which may have lasting effects. Health outcomes might include depression, anxiety, suicide, lowered health-enhancing factors and increased risks of poor physical health.

In addition to immigrant experiences and individual strengths and weaknesses, the response of the host society to immigrants and racial/ethnic minorities can have significant implications for health and well-being. Some research exists on policies and programs affecting settlement and integration; clearly, the host society's individual, community and societal response to immigrants can have a positive or negative effect. Ways in which host communities can support and welcome new immigrants should be further investigated.

A related line of inquiry concerns the decrease in health status among some immigrants; that is, why do generally healthy immigrants become less healthy after arrival? Are there critical interventions that would help to preserve their health and at what points should these interventions be made? When is health most threatened and when is it most responsive to change? Knowledge of deteriorating health status and steps to prevent it would be of benefit to the population as a whole. The role that systemic discrimination may play in the loss of health status would also be a significant contribution to knowledge. For example, surprisingly little research specific to immigrants has been done on the incidence and effects of hate crimes toward visible minorities.

A critical review of existing literature on the immigration experience as a determinant of health would be beneficial to the field. Current research by the Metropolis Centres of Excellence will make an important contribution to this knowledge. Further research should focus on the complex processes of settlement/integration and the factors that aid adjustment — especially for those at high risk of poor health outcomes. As well, the extent/effects of discrimination and racism should be examined.

3 The Need for More Gender Analysis in Immigration Research

Research on immigrant women has increased considerably in recent years; however, gender differences between women and men are still not well addressed, resulting in research that is less useful in analyzing gender bias in policies and programs.

Research based on men's experiences cannot be assumed to apply equally to women, and vice versa. To be most useful, research on health status, diseases and conditions, health behaviours, attitudes and lifestyles, settlement and health services, etc., should provide comparative information on women and men.

In addition to immigrant experiences and individual strengths and weaknesses, the response of the host society to immigrants and racial/ethnic minorities can have significant implications for health and well-being.

Smaller studies show that many immigrant women face double discrimination (ethnocultural and gender) and greater cultural and role conflict, and they lead more complex lives than immigrant men. Their experiences and values may make some health services inappropriate and inaccessible (e.g., women experience a greater burden of care than other family members and may put their health concerns after those of other family members). Some research methodologies may be more useful with immigrant women than others (e.g., those that address power and cultural differences).

A review of research on immigrant women, with recommendations for subsequent research topics and methodologies, would be useful. Where feasible, new immigration research should include both male/female comparative analysis and a gender analysis.

4 A Wide Scope for Additional Research Related to Health System Support and Renewal

Much less research was found than expected in the area of health system support and renewal, given the prominence of the topic and the potential effects on some immigrants of regionalization, spending reductions or slowdowns and changes in focus from institutions to the community. Existing research focusses on conventional health care utilization data (hospital and physician care), costs of services for immigrants, accessibility of services related to cultural appropriateness, provider sensitivity and knowledge, and other barriers. Limited research was found on alternative therapies and foreign-trained health care providers.

The scope for research in this area is quite extensive, and will be addressed to some extent by new research by the Metropolis Centres of Excellence. Research on immigrant utilization of a wider range of health services, interest in and use of alternative therapies and the importance of foreign-trained health care providers would be of benefit. As well, the effects of health care restructuring, reductions or shifts in resources from institutional care to the community, and new models for culturally appropriate and accessible care (especially mental health services) would be important areas of inquiry.

5 The Need for an Immigration Perspective on Management of Risks to Health

Little research specific to immigration was found on topics related to management of risks to health. A few references were found to infectious diseases (e.g., tuberculosis and hepatitis), pre- and post-arrival disease screening, surveillance and treatment. Perhaps due to the well-established responsibility of Health Canada's Health Protection Branch, immigration-specific health risk management has not been a strong line of inquiry among the Metropolis Centres of Excellence or academic researchers outside government.

However, changing immigration patterns, especially countries of origin, may indicate the need for additional attention to immigration-related health risks, as they affect immigrants themselves, immigrant host communities and Canadian society in general. For example, existing research indicates that there are ethnoculturally

specific risk factors for the transmission of HIV/AIDS; as a result, mainstream prevention methods may be ineffective. Difficulties in successfully detecting and treating tuberculosis among immigrants may have negative consequences for immigrants and the Canadian-born. Further inquiry related to the effects of infectious diseases on immigrants and on the host society itself may be warranted.

6 Little Focus on the Strengths of Immigrants or Their Positive Effect on the Health Care System

This scan looked at research studies concerned with the effects, both positive and negative, of immigration on immigrants themselves and on the host community, in keeping with the Metropolis philosophy. By far, the greatest concentration of health-related research was on the immigrant rather than on the health system, and little material was found that examines the positive effects of immigration on the health of Canadians in general and on the health system itself.

For example, much of the research focusses on the mental health problems of immigrants, in spite of evidence that most immigrants are mentally healthy, resilient and able to adjust well to a new culture and home. In fact, the immigration experience may have many positive effects, as newcomers from other cultures often exhibit effective ways of coping with disruption and stress. The strong family- and community-centred values of many immigrants may also serve to make Canada a “healthier” place. Changes to the health care system to accommodate the different experiences and needs of immigrants may result in improvements to health services for all Canadians; greater access for some may lead to greater access for all. As mentioned earlier, a better understanding of declines in health status and ways in which to counter them may be applied to other groups. Similarly, the positive benefits of alternative therapies and foreign-trained practitioners may improve the health of Canadians in general.

Immigration health research would benefit from more emphasis on the positive contributions that immigration can have on Canadian society, as well as from an exploration of the strengths and positive health attributes of immigrants.

7 Need for a Focus on Sub-Populations

Much of the current immigration research focusses on the population as a whole or on the racial/region of origin sub-populations. Adults and youth have been studied most often, with less information available on children and seniors.

A general approach to immigration health has a number of drawbacks, since it combines information on short-term and long-term (usually European) immigrants. The latter came from a very similar culture, are well integrated into Canadian society and have adopted similar lifestyles/health behaviours to Canadians in general, compared with recent arrivals. Changes in immigration patterns (e.g., new immigrants are more likely to be visible minorities, to come from less developed countries and to be younger) would appear to be widening the gap between short- and long-term residents’ socioeconomic circumstances and health status.

A general approach may obscure poor socioeconomic conditions and health status among sub-populations, by stating that immigrants in general have higher incomes and better health than Canadians in general, when for significant

The strong family- and community-centred values of many immigrants may also serve to make Canada a “healthier” place. Changes to the health care system to accommodate the different experiences and needs of immigrants may result in improvements to health services for all Canadians; greater access for some may lead to greater access for all.

sub-populations (such as refugees or low-income immigrants) this is not the case. Emerging research also indicates that length of time in Canada (and also age at immigration), immigration experiences and discrimination create important differences.

Effective use of research resources requires a focus on immigrant sub-populations at greatest risk of poor health outcomes and most likely to benefit from targeted interventions. Based on this scan, the following sub-populations are considered worthwhile subjects for research:

- immediate/recent arrivals — critical time periods to be determined, e.g., up to two, five or 10 years?
- children
- seniors
- women
- new regions of origin (Asia and Africa)
- refugees (especially children and survivors of torture)
- other high-risk groups, such as low-income children and families, refugees from developing countries, those who immigrated at a later age and the socially isolated

Future Research Directions

This final section will present suggestions for syntheses of current research findings, in-depth literature reviews and new research.

Syntheses of Findings

Syntheses of findings are warranted in areas where there is a considerable body of available research and where there is some consistency in findings. Literature on these topics could be critically appraised and presented in a summary document with possible policy and program implications.

Suggested syntheses are as follows:

- child health
- gender issues/immigrant women's health (after in-progress studies are completed)
- a profile of immigration health using a population health approach similar to *Toward a Healthy Future: Second Report on the Health of Canadians* (Federal, Provincial and Territorial Advisory Committee on Population Health, 1999), after the in-progress studies have been completed

In-Depth Literature Reviews

In-depth literature reviews are desirable where there is considerable available research that might include conflicting or inconclusive results. This literature could be critically reviewed and presented in a summary document that includes research implications. A more thorough search and review of literature is suggested in these areas:

- adaptation/integration and mental health
- relevant ethnocultural research
- the immigration experience as a health determinant
- health status and determinants for recent immigrants

New Research

New research is warranted in areas of policy concern where very little research knowledge is available or where existing research has been reviewed and gaps have been identified. New research must build on existing knowledge and utilize the most effective methodologies available. In fact, development of effective research methodologies for immigrant populations is an important research area in itself. Both greater inclusion and analysis of immigrant health indicators in national population-based surveys, and the design of high quality and generalizable smaller studies are recommended.

The following new immigration health research is suggested by this scan:

- extent and nature of systemic discrimination/racism and its effects on health
- health-related effects of immigration on the host community/country
- gaps in knowledge of health determinants for recent immigrants
- interaction of determinants with pre-immigration and immigration experience, length of time in Canada and age at immigration
- effective actions to improve population health for different sub-populations, including identification of key stress points and opportunities for intervention
- effects of health reform (e.g., regionalization, restructuring and shifting resources) on recent and/or high-risk immigrant groups
- factors in quality improvement and accessibility of the continuum of services (from prevention to rehabilitation), including training needs among health care providers
- importance/value of alternative therapies and foreign-trained health care providers to immigrants and to the host population

Conclusion

This scan of health-related immigration research has provided a brief overview of knowledge in the field, as well as an indication of new directions for syntheses and review of existing research and proposed new research topics.

At the time of writing, the Metropolis Centres of Excellence had about 60 projects under way that will make significant contributions to the knowledge of immigration health. In particular, research will address overall health status of several sub-populations and virtually every major health determinant, with an emphasis on the immigration experience, income, social status (including discrimination) and social/family support. It is recommended that measures of immigrant health status be included in studies focussing on the broader determinants. A number of projects address issues such as health systems support and renewal through research on utilization and quality of services, access, the cultural sensitivity of providers and the effects of funding policies. The Centres of Excellence for Women's Health will contribute significant research on gender issues and immigrant women's health.

The Metropolis Project has the potential to create essential new knowledge in an area of health whose relevance is timely. It can do so by maintaining a broad view of health — one that takes socioeconomic and other environmental factors into account in assessing health, by continuing its dual focus on immigrants and the host society, and by fostering dialogue and partnerships among the many sectors and organizations concerned with immigration.

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Appendices





Appendix A

Library Search Strategy

Topics/Key Words

immigration/immigrant/refugee in combination with

health
well-being, wellness
mental health

medical care/services
health care
home care/long-term care
prenatal and postnatal care
pregnancy care/birth/obstetrics
child health/pediatrics
child development/post-adoption services
seniors' health/geriatrics
adolescent health
women's health

health promotion
disease prevention
disease surveillance
treatment
rehabilitation

infectious diseases
communicable diseases
public health

quality of care
accessibility of care
cultural sensitivity
language/linguistic barriers
accreditation (of foreign-trained health care
professionals)
professional training/development (to prepare
health professionals to work with immigrants)

health human resources
alternate therapies (i.e., foreign treatments,
drugs, practices)

social support
family support
unemployment/underemployment
discrimination/racism
housing

tuberculosis
hepatitis
family violence
youth/gang violence
depression
suicide
psychiatric disorders
HIV/AIDS
sexually transmitted infections
fertility/birth planning/contraception
sexual/reproductive health
tobacco/smoking
alcohol or drug abuse/substance use
cancer
chronic health conditions
disabilities
active living/fitness
healthy eating/nutrition



Appendix B

Sources of Documents

GOVERNMENT/RESEARCH PROGRAMS

Metropolis Centres of Excellence
Centres of Excellence for Women's Health
Centres of Excellence for Research on Family
Violence and Violence Against Women and
Children
Recent Health Canada grants, contributions
and contracts
Medical Research Council (MRC)

National Health Research and Development
Program (NHRDP)
Population Health Fund
Canadian Health Services Research Foundation
The other seven departments participating in the
Metropolis Project

NON-GOVERNMENTAL ORGANIZATIONS

Canadian Ethnocultural Council
Pearson-Shoyama Institute
National Organization of Immigrant and
Visible Minority Women
Canadian Council on Multicultural Health
National Advisory Council on the Status of
Women
Canadian Public Health Association
Canadian Society for International Health
National Anti-Poverty Organization
Canadian Institute of Child Health
Canadian Council on Social Development
Canadian Council of Refugees
North-South Institute
Conference Board of Canada
Caledon Institute
Canadian Council of Churches
Healthy Cities Network

Network of Health Promotion Centres
Canadian Mental Health Association
Institute for Research on Public Policy
Health Interaction
Ontario Council of Agencies Serving Immigrants
Immigrant Services Society of B.C.
SUCCESS (Vancouver)
Mennonite Central Committee
Manitoba Interfaith Immigration Council Inc.
Canadian African Newcomer Aid Centre
COSTI Immigrant Services
Table de concertation des organismes de Montréal
au service des réfugiés
Centre de recherche-action sur les relations
raciales
Collectif des femmes immigrantes
Jewish Immigrant Aid Society (Montreal)



Appendix C

Health-Related Research of the Centres of Excellence for Research on Immigration and Integration as of March 1999*

Research on Immigration and Integration in the Metropolis (RIIM)

c/o Department of Geography, West Mall
University of British Columbia
Vancouver, BC V6T 1Z2

Tel.: (604) 822-3188

Fax: (604) 822-6150

E-mail: riim@sfu.ca

Website: <http://riim.metropolis.net>

Health Research

Anderson, J. **Health Services Accessibility: Assessing the Multicultural Change in Health Services Delivery**

The researcher is conducting ethnographic research in three health care agencies selected from 22 in British Columbia that are participating in the Multicultural Change in Health Services Delivery Project. The research is concerned with an in-depth examination of how such changes are implemented.

Dunn, J., and I. Dyck. **Social Determinants of Health in Canada's Immigrant Population: Results from the National Population Health Survey**

This analysis of data from the National Population Health Survey provides information on the social determinants of health in Canada's immigrant population. Specifically, it examines differences in health status and health care utilization between immigrants and non-immigrants, immigrants of European and non-European origin, and immigrants with less than 10 years of and greater than 10 years of residence in Canada. While the researchers find no obvious, consistent pattern of association between socioeconomic/immigrant characteristics and health status, they also state that statistical analysis suggests that socioeconomic factors are more important to the health of immigrants than to non-immigrants, although in ways that defy simple explanation.

Dossa, P. **Toward a Meaning-Centred Approach to Mental Health: Ethnographic Case Study of Elderly Canadian Muslims**

There continues to be intense debate between psychiatrists and medical anthropologists as to whether a Western understanding of psychiatry can be used in non-Western cultural contexts. This study presents an ethnographic approach to mental health (inclusive of well-being) among Muslim communities in Metro Vancouver. It discusses how far reconstructed cultural norms and practices

* Notes:

1. A synopsis of health research studies is provided in this Appendix. Studies that address the broader determinants of health, but do not have a health focus, are listed but not described.
2. Completed reports on health research projects included in this Appendix are referenced in the Bibliography.

challenge Western psychiatric approaches. The Canadian-Muslim model of “creating space” examined within selected ethnographic sites is discussed to suggest a more inclusive framework where racialized and health/illness dichotomies are reassessed. The results of the research are expected to have a direct bearing on elderly immigrants targeted as being susceptible to depressive disorders.

Globerman, S. **Immigration and the Impact on the Canadian Health Care System**

The study reports on an analysis of data contained in the National Population Health Survey in order to identify whether and in what ways immigrants to Canada use the health care system differently from native-born Canadians. Findings suggest that health care utilization among immigrants and native-born Canadians largely reflects differences in age distributions and that, over a lifetime, immigrants impose neither above nor below average financing demands on the health care sector.

Research Related to the Determinants of Health

Creese, G. **Government Restructuring and NGO Service Delivery**

Gross, D. **Macro (Un)employment Conditions and Immigrant Employment in Vancouver**

Laryea, S. **Immigrants and Wages in the Vancouver Labour Market**

Ley, D., and H. Smith. **Is there an Immigrant “Underclass?”**

Miraftab, F. **Access of Low-income Immigrants to Housing**

Paranjpe, A., and R.G. Tonks. **Youth, Identity and Immigration: The Dynamics of Identity Formation and Cultural Adjustment Among Immigrant Youth**

Health Research

Arthur, N. **Providers of Support to Survivors of Torture**

In order to prepare community members for the role they may play in the settlement process, this study is an exploratory investigation of experiences and needs of people who provide support to survivors of torture. Although community members and professional specialists may be active in assisting migrants, often they are ill-prepared to meet the needs of survivors of torture. The study includes interviews with host volunteers and community professionals, and an annotated bibliography of the literature on vicarious victimization.

Baker, C. **Stress of Immigrant Families with Adolescent Children Living in Areas Without Ethnocultural Communities**

A field study is being conducted to examine the stress experienced by immigrant parents of adolescent children who have settled in an area where there are no ethnocultural communities. The purpose of the study is to identify, describe and compare the level of stress, the perceived adolescent-rearing related stressors and the coping strategies used by immigrant parents from two regions of origin — Vietnam and India — who have settled in urban areas of New Brunswick. It is a first step in a larger study of the role of ethnocultural communities in the stress experienced by immigrant families.

Meadows, L., and W. Thurston. **Immigrant Women and Health: Phase II of WHEALTH**

The project is identifying and describing patterns of variation related to immigrant women's health status characteristics, based on the assumption that health issues of immigrant women may differ significantly from those of women who are Canadian-born. A grounded theory approach is being used to identify patterns and variations in descriptions of health, and to analyze the connection between them (e.g., education, income, English proficiency, acculturation, social support or place of residence).

Neufeld, A., M.J. Harrison, M.J. Stewart et al. **Immigrant Women's Experience as Family Caregivers: Support and Barriers**

The purpose of this study is to understand the experience of women family caregivers who are recent or past immigrants from China and India. Specific objectives are: a) to identify the nature of the material and social conditions within which immigrant women give care; b) to understand how they access support and the barriers to support that they encounter; and c) to examine their experience in accessing health and social service resources. The study includes immigrant women caring for a relative with a chronic health condition or disability.

Ogilvie, L., E. Smith, D. Wrightson et al. **Minority Nurses for Minority Populations: A Pilot Study in Public Health Nursing**

Three nurses who are immigrants themselves were employed to work in the areas of perinatal health and well child care with Chinese and Vietnamese immigrant families receiving services from four health centres in northeast Edmonton. An action research project produced findings in four areas: tracking the process of introducing the change; benefits to clients; cultural knowledge relating to perinatal beliefs and practices; and knowledge of the power of action research in mediating change.

Trovato, F. **Migration and Survival: Differential Mortality Across Immigrant Communities in Canada**

This study analyzes mortality differences among relatively recent immigrant groups to Canada (e.g., Latin Americans, Asians, Africans) and more established foreign-born communities (e.g., Italians, Germans, British). Attention is paid to the role of factors in the host society, including group differences in community characteristics, such as their location across the region and metro/non-metro areas, socioeconomic disparities and demographic characteristics during 1991.

Young, D., and D. Spitzer. **Understanding the Health Care Needs of Canadian Immigrants**

This two-year study examines adaptive strategies of selected immigrant groups in the Edmonton area, and how these strategies affect their health. It also documents the barriers that immigrants encounter in accessing services and suggests programs and policies that promote improvements to the health status of immigrant individuals and communities. In the first year, the project is documenting adaptive strategies (and their health implications) of three groups: Chinese, Chilean and Somali. The second year will focus on the practical problems of expanding options in the existing health care system.

Research Related to the Determinants of Health

Basran, G.S., and L. Zong. **Visible Minority Immigrant Professionals and Evaluation of their Credentials**

Driedger, L., and S. Halli. **Integration/Segregation of Urban Prairie Visible Minority Immigrants**

Este, D., S. Sethi and M. Charlebois. **Factors Influencing Child Rearing Practices of Recently Migrated East Indian and Chinese Women with Children from Infancy to Age Six**

Grant, M. **Housing, Extended Families, Community and Acculturation: African Immigrants in Calgary**

Halli, S. **The Triple Ghetto: The Spatial Concentration of Poverty Among Prairie Immigrants**

Hayford, A. **Religion as Place: Autonomous Integration and the Construction of Community by Deracinated People**

Hébert, Y., C. Kodron, A. Moreau et al. **The Influence of Contexts on Identity Formation Among Adolescent Immigrants**

Kalbach, M.A., and W.E. Kalbach. **Ethnic Diversity and Persistence in Canada: Metropolis Variations in Immigrant Adjustment**

Langford, N., N. Waiyaki, A. Fantino et al. **Coping Strategies, Employment Status and Relationship Stability of Immigrant Couples**

Li, P. **Earning Opportunities of Immigrants: An Analysis of Urban Scale, Industrial Structure and Enclave Economy on Income Disparity**

Tastsoglou, E., and B. Miedema. **Immigrant Women Organizing for Change: Integration and Community Development by Immigrant Women in the Maritimes**

Wanner, R. **Shifting Origins, Shifting Labour Markets: Trends in the Occupational Attainment of Immigrants to Canada**

Health Research

Fuller-Thomson, E., J. Lee, E. Lawson et al. **Towards Respiratory Health Among Immigrants in South East Toronto: Life Histories of Chinese and Caribbean Immigrants**

This research project builds on a community-initiated process in southeast Toronto to investigate the problem of respiratory illness among poor, inner-city immigrants. Researchers used the life history qualitative research technique with 40 inner-city immigrants to examine the meaning of respiratory illness, the barriers to health and the coping strategies used. Relevant program and policy implications were developed from the findings, which address the concerns of a low-income, inner-city, immigrant community.

Glazier, R., M. Cohen and E. Badley. **The Health Effects of Reductions in Welfare Payments and Hospital Closures on Immigrant Populations in Southeast Toronto: A Ten Year Time Trend Analysis**

The overall objective of the project is to investigate the health effects of reductions in welfare payments and hospital closures on new immigrants in southeast Toronto over the years 1990-2000. The study utilizes a longitudinal approach to analyze the trends in hospital utilization and physician visits. Discharge abstracts for all acute care hospital separations and physician claims to the Ontario Health Insurance Plan and Census data from 1991 and 1996 will be used.

Hyman, I., and S. Noh. **Ethnocultural Influences on Symptom Expression, Help-Seeking Behaviour, Mental Health Care Utilization and Problem Resolution Among Ethiopian Immigrants in Canada**

The researchers are investigating ethnocultural influences on symptom expression, help-seeking behaviour, mental health care utilization and problem resolution among Ethiopian immigrants to Canada. The study is intended to provide information to the Ethiopian community to strengthen its capacity to assist its own members and assist the mental health care system to respond to this community in a culturally sensitive and appropriate fashion.

Meana, M., L. Wells, T. Bunston et al. **Identifying Barriers and Incentives to Breast Screening Behaviour in Tamil Immigrant/Refugee Women 50 Years Old and Over**

In this comparative pilot study, the researchers are examining the barriers and incentives influencing the extent to which older Tamil women engage in potentially life-saving breast cancer screening behaviours. Evidence suggests that only a minority of immigrant women regularly use breast self-examination, clinical breast examination and mammograms. Physician attitudes and behaviours will also be investigated to identify a range of culture-specific obstacles and incentives to breast cancer screening.

Noh, S., I. Hyman, J. Gobena et al. **Pathways and Barriers to Mental Health Care for Ethiopians in Toronto**

Traumatic migration experience coupled with the demands of resettlement in a new country create mental health risk. However, little is known about the pathways and barriers to mental health for this group. This study's objectives are to investigate ethnocultural influences on help-seeking behaviour in Ethiopian immigrants and to inform the development of new epidemiological and ethnographic approaches.

Welsh, J., M. Koch, A. Murray et al. **Food Security, Health and the Immigrant Experience**

The goal of this project is to identify and support ethnically appropriate food-related programs, community action strategies and policies to enhance the health and well-being of immigrants. Food security is a long-standing problem for vulnerable groups in the immigrant community. Key informant and semi-structured interviews with community service organizations and participatory action research with immigrant groups are being used to explore immigrant food security issues and identify appropriate action, services and policy responses.

Yuan, L., I. Rootman, A. Teyeh et al. **The Study of the Health Status and Health Care Access for the Arab Community in Toronto: A Pilot Study to Assess Health Needs**

This pilot study aims to collect socioeconomic, demographic, health, health care needs and other data on the Arab community in the Toronto area. Two methods are being used: compiling and analyzing data from Statistics Canada and other sources, and community-based research using focus groups. The results of the study will lay the groundwork for further research to investigate the health status of the Arab community and its access to health care services in the Toronto area.

Research Related to the Determinants of Health

Chambon, A., M. Abai, B. Shapiro et al. **Link by Link: The Challenge of Building Community with Survivors of Torture**

Hagan, J. **The Next Generation: Life Course Effects of Immigration and Educational Experiences on Adolescent Transitions to Adulthood**

Harvey, E., B. Sui and K. Reil. **Changing Patterns of Immigrants' Socioeconomic Integration**

Irving, H. **Satellite Children: An Exploratory Study of their Experience and Perception**

Israelite, N. **Voices of Immigrant Women: The Effects of Cutbacks on their Settlement Experiences**

Kilbride, K.M. **Early Differences Experienced by Visible Minority Children**

Pepler, D.J., J. Connolly, W. Craig et al. **School Experiences of Immigrant and Ethnic Minority Youth: Risk and Protective Factors in Coping with Bullying and Harassment**

Preston, V., G. Man and D. Mui. **Employment Barriers Experienced by Chinese Immigrant Women in the Greater Toronto Area**

Reitz, J. **Immigration, Ethnic Diversity and Labour Unions in Canada**

Roberts-Fiati, G., C. Chauncey, G. Dei et al. **Enhancing School Retention Among African-Canadian Youth**

Sandys, J., B. Hall, S. Ali et al. **Immigration and Settlement Issues for Ethno-racial People with Disabilities: An Exploratory Study**

Shields, J. **Immigration and Refugee Youth Unemployment: A Qualitative Exploration of Labour Market Exclusion**

Simmons, A., G. Bielmeier, D. Ramos et al. **Latin American Youth in Toronto: Identity and Immigration Issues**

Trocmé, N., U. George, D. Herberg et al. **Building Bridges: The Collaborative Development of Culturally Appropriate Definitions of Child Abuse and Neglect for the South Asian Community**

Health Research

Jiminez, V. **Review of Quebec Research on Health and Social Services in Quebec**

This review focusses on research evaluating interventions or programs. Research topics to date have related mostly to level of satisfaction in interventions, parental support, early stimulation of young children and social interventions with adolescents at rehabilitation centres. However, much work remains to be done in areas such as understanding the worker-client relationship and the impact of services provided, a better understanding of the problem of conjugal violence among various ethnocultural clientele, and interventions that better reflect the multi-ethnic context.

Jiminez, V., J.-F. Saucier and G. Bibeau. **Epistemological Crossroads: Modern Medicine and Other Medical Practices in a Pluricultural Society**

The objectives of the study are to: 1) undertake intercultural epistemological reflection, to better understand pluralism in practices and forms of medicine, outside the dominant framework of Western medicine; 2) develop familiarity with the knowledge and expertise connected with non-Western medical traditions or practices; and 3) create space for clinical reflection that makes it possible to identify the dominant elements and the relationships of complementarity between therapeutic traditions, so as to better understand health/disease care issues in the multi-ethnic and pluralistic society in which we live.

Jiminez, V., C. Sterlin and A. Contandriopoulos. **Communication Between Caregiver and Care Receiver in a Context of Great Sociocultural Distance**

This study comprises the first phase of a project to create a better understanding of caregiver-patient communication. The present phase is focussing on Haitian patients being served by Quebec physicians. Patient-physician interactions are being videotaped and shown to traditional Haitian healers for their reactions on the nature of the interaction; these interviews in turn are audio-recorded. The visual and auditory data are being analyzed to identify ethnocultural barriers to effective communication.

Kirmayer, L., and E. Jarvis. **Emergency Assessment and Treatment of Immigrants with Psychosis**

The project assesses the impact of ethnicity on the emergency management of acute psychosis. Objectives include: 1) documenting the ethnic composition of patients presenting with psychosis at the Montreal Jewish General Hospital emergency department; 2) assessing how ethnicity interacts with psychosis to influence rates of police contact, levels of self-insight assigned by clinicians and patterns of acute treatment; and 3) recommending guidelines for culturally appropriate emergency psychiatric care.

Kirmayer, L., A. Young and M. Weinfeld. **Pathways and Barriers to Mental Health Care**

The research team is continuing to work on the issue of barriers to mental health care facing Vietnamese, Anglo-Caribbean and Filipino immigrants in Montreal. Data analysis of over 2,000 cases, including a qualitative component based on individual interviews, is continuing. The project is expected to result in a better understanding of immigrant access to health care, and data will be available for linkage to Santé Québec's major survey of immigrant population health in the province.

Krane, J., J. Oxman-Martinez, M. Chalom et al. **State Responses to Conjugal Violence: Impact on Québécois and Immigrant Families**

Coupled with language barriers, traditional pathways to freedom from conjugal violence such as contacting police, leaving the abuser and seeking refuge in a shelter may not be helpful to immigrant and refugee women. This project examines the impact of contemporary dominant state responses to conjugal violence as experienced by Québécois and immigrant families by conducting a literature review and conducting focus groups to explore key informants' and police perceptions of state responses to conjugal violence.

Meintel, D., and R. Sévigny. **Role of Relations Between Ethnic Minorities in the Process of Insertion into the Host Society: The Case of CLSC Clients and Home Support Workers**

This project looks at relations between ethnic and cultural minorities and home care workers. The research strives to understand how ethnocultural differences affect the work of home care workers, especially as they relate to providing practical advice to clients during their work.

Oxman-Martinez, J., and J. Krane. **Front-line Responses to Conjugal Violence: Pathways and Barriers to Culturally Sensitive Practice**

Anticipating differences between the mainstream and cultural groups, the project aims to offer insights into developing culturally sensitive practice responses in shelter, police and hospital settings and in the policy context within which such practices occur. How mainstream professionals in health, social services, law enforcement and shelter settings construct the problems of conjugal violence and effective responses to it is being studied. Two specific ethnocultural groups in Montreal are the focus: Arab-West Asian and Latin American.

Rousseau, C., S. Moreau, A. Drapeau et al. **Integration Policies and Mental Health: Impact of Prolonged Family Separation on the Mental Health of Refugees**

The effects of prolonged family separation as a result of immigration procedures was studied, using a sample of 114 refugees from Africa and Central and Latin America. Results show that 80% of refugees experienced family separation, generating anxiety and feelings of uncertainty that may interfere with the integration process. Other findings indicate that refugees who live apart from their immediate family for a longer period of time tend to show more emotional problems and that refugees experiencing traumatic events are most affected. Families reunited after many years of separation are likely to experience relational problems.

Weinfeld, M. **Ethnic Matching: Intervenors and Patients**

The aim of the study is to examine the role of minority professionals in all public service domains, using a participant observation as well as a more quantitative approach. Physicians and nurses of minority origin (in all branches of medicine) were interviewed as a part of a preliminary study. Expansion into general health services, possibly in conjunction with the database of Santé Québec, is planned.

Research Related to the Determinants of Health

Bibeau, G., and E. Corin. **Roles and Functions of Churches and Religious Groups in the Process of Integration of New Quebeckers into the Host Society**

El Yamani, M. **Racism on the Move**

Firbank, O. **The Transition from Participation in the Labour Force to Retirement, in the Context of Ethnicity: A Study of Four Communities of Immigrants in the Montreal Metropolitan Area**

Firbank, O., and A. Vézina. **Co-Residence and Dynamics of Intergenerational Support Among Immigrant and Quebec Families: A Successful Solidarity Model?**

Ledent, J., and J. Renaud. **Economic Fluctuations and Employment of New Immigrants**

Legault, G., and J. Oxman-Martinez. **Parent/Child Conflict Prevention in Cases of Family Reunification**

Ray, B., D. Rose, J. Charbonneau et al. **Social Networks of Female Haitian Immigrants: The Role of Weak Bonds at the Neighbourhood Level**

